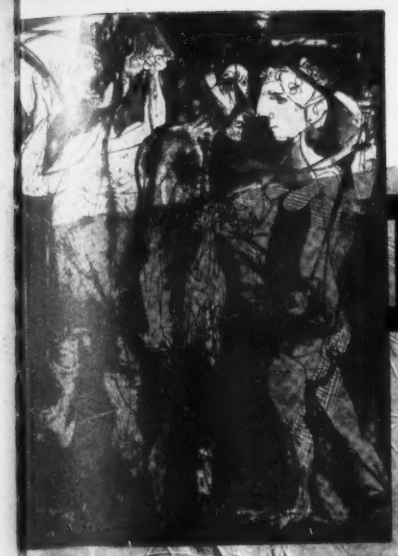

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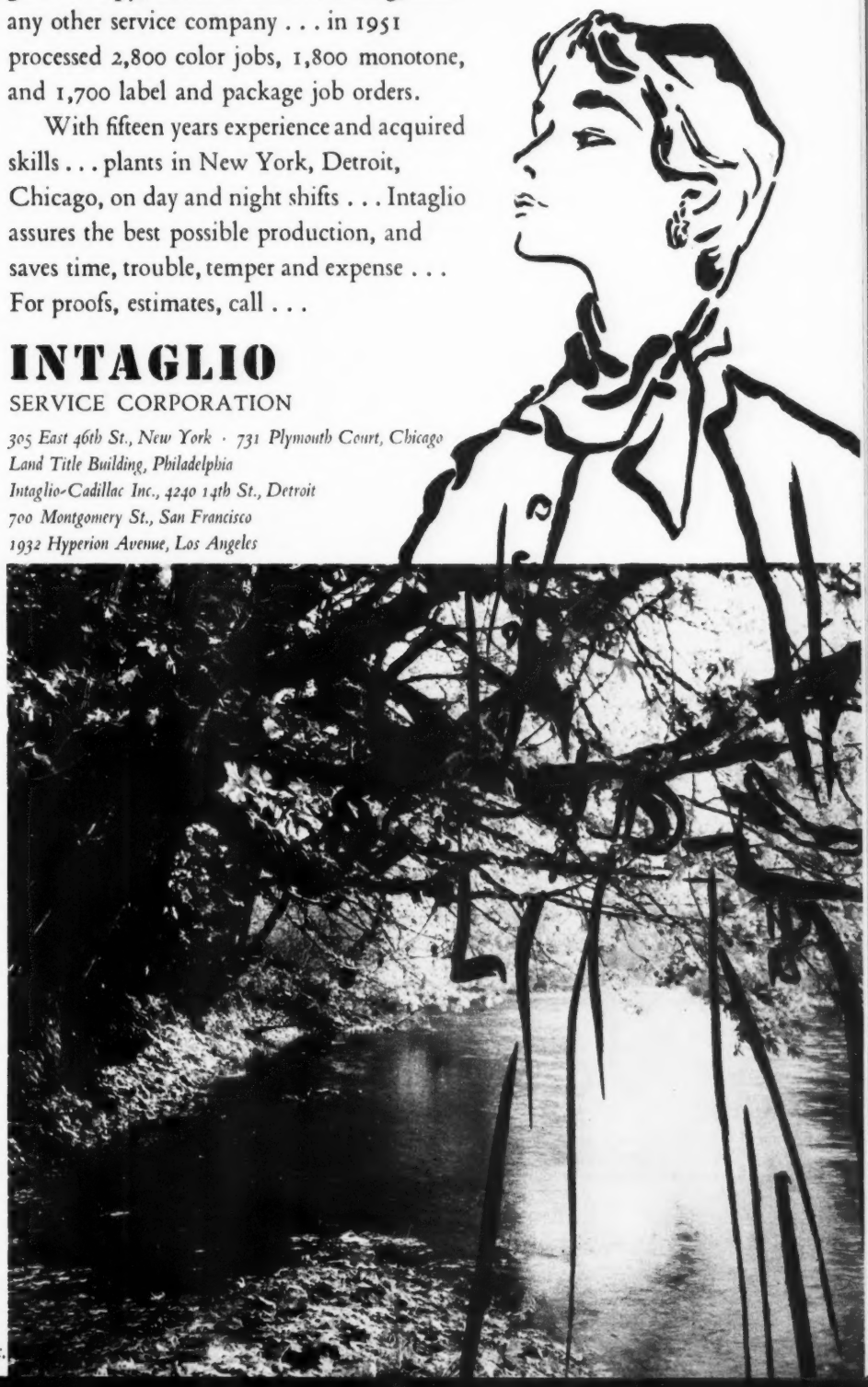

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January, 1952

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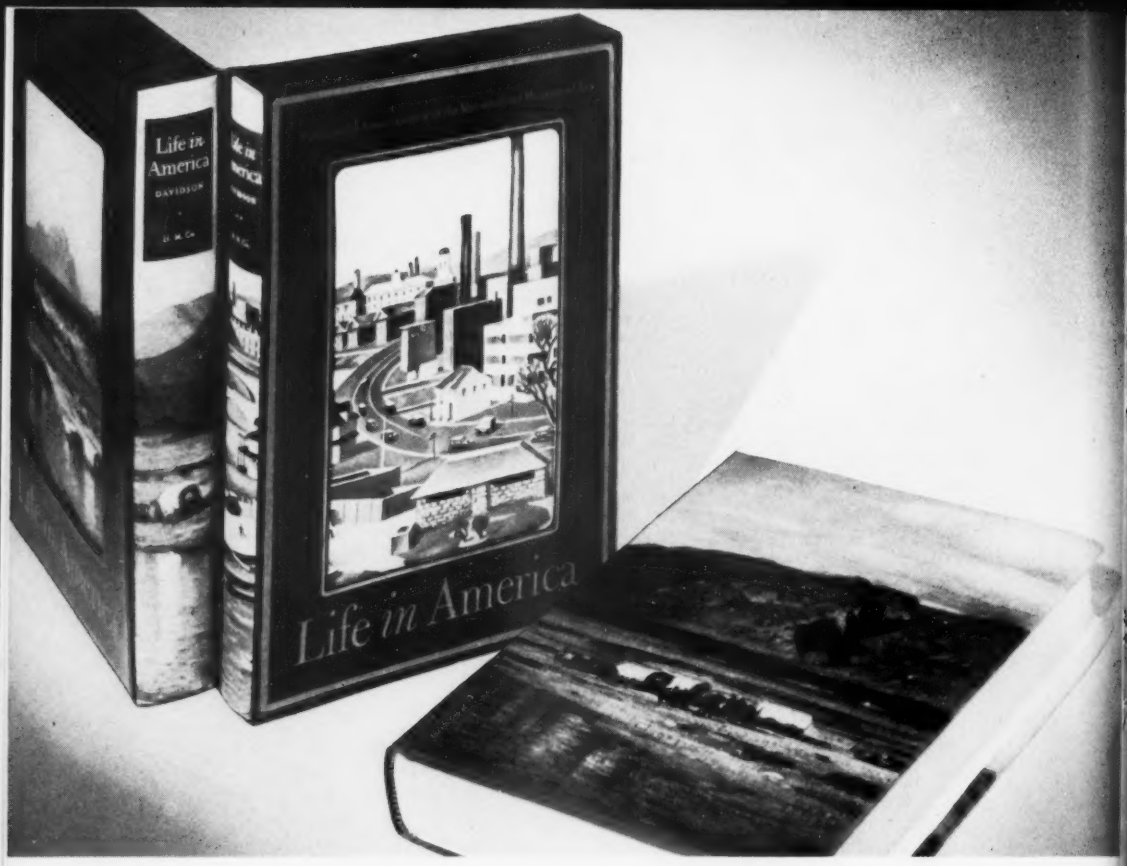

LIFE IN AMERICA

Publisher *Houghton Mifflin Company, Boston*
Binder *The Riverside Press, Cambridge*
Printer *Photogravure & Color Company, New York*
Paper *The Mead Corporation, "Paper Makers to America"*

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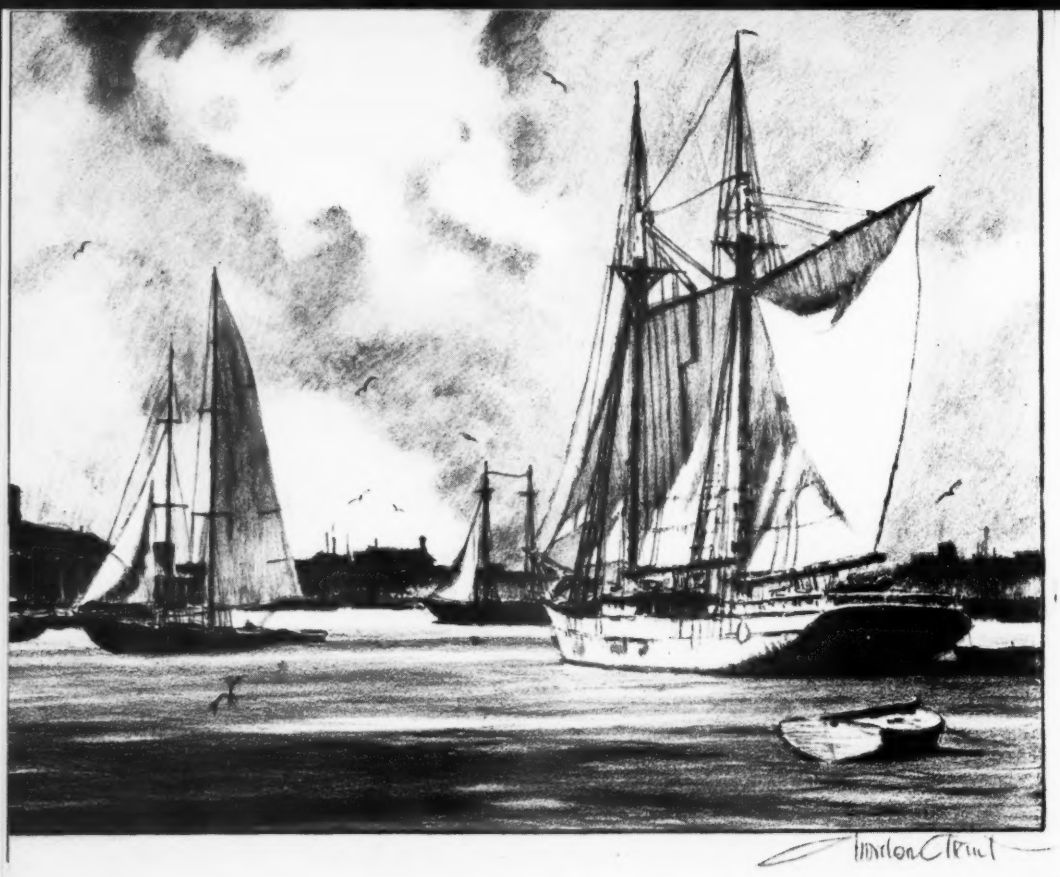

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Sheet Color Photogravure In Europe Today

ITS POSSIBILITIES FOR HIGH-QUALITY PRINTING, WITH SOME HISTORICAL SIDELIGHTS

by R. Conrad, Ph.D.

AMERICAN printers and publishers who came to Europe to have a look round in the trade will make this interesting observation: all of the big printers are specially noted for top-quality work in sheet color photogravure. The importance of this fact makes it worth while to investigate the merits of this printing process.

Theoretically, there is no doubt that color photogravure has certain advantages over the other existing processes — such as multicolor offset and letterpress — that it does not have to break up the image into dots, but achieves its gradation of color intensity by a thicker or thinner film of ink which — being continuous — retains every detail of the photographic original. The fine lines of the photogravure screen are chiefly a technical device which make it possible to keep the doctor blade on the press in its position on the surface of the copper plate.

This fundamental difference accounts for the fact that it is possible to achieve with three colors an immense range of color combinations and a depth of body in the shadows which is unequaled in other processes using the same number of colors. Quite apart from this reduction of the scale to three colors only, the definition of the resulting image is generally far better, and gives more detail, than processes which have to break up the image through screen dots — however fine these may be. In any case, European printers have proved that this theoretical advantage — if properly translated into practice — works perfectly well in producing beautiful results, as demonstrated by the illustrations, which are shown and discussed later on. It looks as if color photogravure

will gradually become the ideal process for the reproduction of color photographs. As it uses, for the build-up of its images, the same three primary colors as modern color photography, it is quite often called its twin brother, not unjustified when looking at the attached specimens.

Photogravure — especially color photogravure — is a relatively young development in the printing trade, having been invented, largely by the Germans, the first patents dated 1898. From the very first, the inventors realized the great possibilities of this process and lost no time in experimenting with color. It is not generally known that actually very good color reproductions were achieved by photogravure before the first World War.

To describe this process as clearly as possible, it might be best to split the whole procedure into two main parts: the reproduction part, up to the finishing of the cylinders, and the machine part dealing with the actual printing.

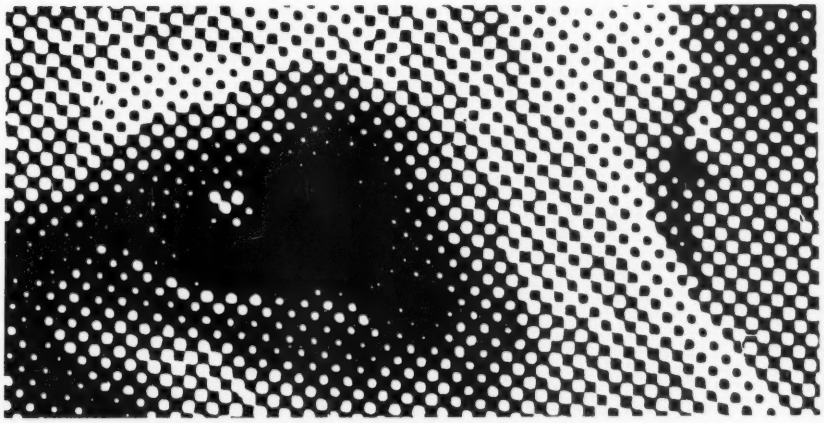
To BEGIN with the process side: as already mentioned, the whole process is, in theory, an ideal one for achieving an accomplished, first-class reproduction with the three primary colors. Naturally, the well-known handicaps of incorrect color rendering through filters, photographic emulsions and, finally, printing inks, have to be made up by correcting either the negative or the continuous-tone positives which are the final basis for the etched image. It is interesting to see how the various firms that have achieved a high standard have tried to solve this problem.

Right from the beginning, the inventors decided that it would be best to standardize, so they went all out to obtain with three colors and one certain predetermined scale of printing inks, a maximum range of mixed colors and shades — and achieved reproductions with an astonishing likeness to the original.

The line of this development was started by the first inventors, especially Dr. Nefgen, of "Deutsche Photogravure", Siegburg, and later very much furthered by "Nederlandsche Rotogravure", Leiden. Actually, the "Leiden Process" has become the mother of practically all the good photogravure printers of today. As far as I know, twenty-one firms in this line have actually received their training, or gained their knowledge, from this printing house, where Dr. Nefgen put his theories into practice.

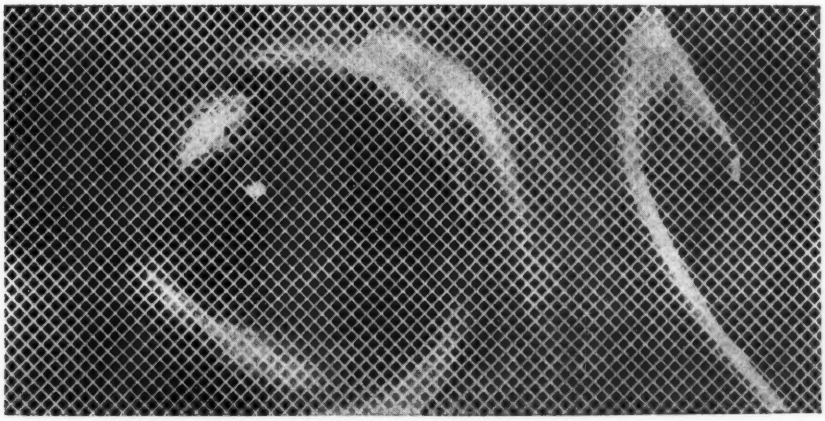
Later on, most of these firms continued on their own and developed their individual processes, some of which are quite well-known and

Half-tone reproduction, 20 times enlarged. Great loss of detail.



The following illustrations give, in an elementary cross-section, a short history of the development of photogravure printing. All drawings are to the same scale, and all show the impression cylinder in a thin line, the second line indicating the printing area. The copper cylinders are drawn in a heavy thick line, the drying ducts and transport chains in a dotted line, and the paper piles in a dashed line.

It is quite interesting to see how the drying section has steadily grown in length to increase the speed, how the cylinders have moved from a mere horizontal to a vertical arrangement, mainly to gain more of the high pressure required. The frames, generally cast-iron, have also gained in strength. The latest designs even use rolled steel for the heavy duty parts.



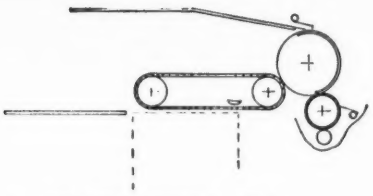
Effect of photogravure reproduction, same scale. More and finer details.

esteemed in Europe today. For example, there is the "Trini" process of Carl Schuenemann, Bremen. Mr. Schuenemann developed greatly the standardization to three colors, and special means of correcting cylinders. Similarly, the "Procédée Draeger" of Draeger Fréres, Paris, is famous far beyond France for the high quality of its results.

During recent years, there has grown a tendency amongst some of these top photogravure printers to use a fourth color for certain parts of the image; in theory this is not generally necessary for color reproductions, but it is believed to diminish certain hazards of the later stages of the process. However, this point is still being argued today, and the general impression is that most printers will revert to the classical three-color system, which not only stands on firmer ground theoretically, but is also more economical and — from the technical point of view — easier and more straightforward. Actually, a three-color separation can be made very near to the theoretical optimum by existing photographic means, whereas using a black means introducing human skill and brains. The black plate cannot be obtained by purely photographic means, but has to be developed from one of the separation plates, or from a combination of them which necessitates the retoucher's special knowledge and experience. Quite apart from the additional man hours, the factor of uncertainty introduced by the fourth color indicates that concentration on the original three-color standard for reproduction is based on sounder premises.

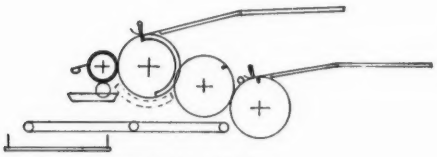
As mentioned, color corrections are generally carried out by retouching the separation negatives or diapositives by hand. The great development of color photography in the last dozen years, since the introduction of multicolor films, has set a number of new problems, mainly that of reducing the extreme contrast range of these color pictures in transmitted light. In addition, the separation of the colors presents certain problems which even change with the make of the film used. To overcome these, so-called masking methods are resorted to, which allow a considerable amount of correction — be it contrast or color — through purely photographical means, i.e. the negative is generally corrected with the positive of the complementary color and other specially made masks which are joined together in contact.

However, all these masking processes are handicapped by two difficulties: the question of perfect registration, and the making of the perfect mask giving just the right amount of correction without overdoing it, or doing too little. There is now, however, a new type camera which replaces masking by contact with a new method of masking by projection, eliminating with one stroke all the drawbacks of the old methods, and heralding, it seems, a kind of revolution in the whole reproduction world.



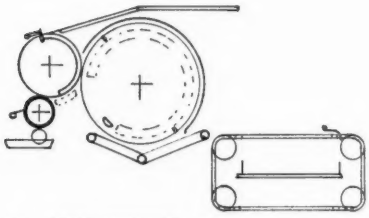
The first photogravure press. No drying system, sheets reversed after printing via chain drive. Interleaving by hand from rear table.

1. THE KEMPE-BLECHER, 1910.



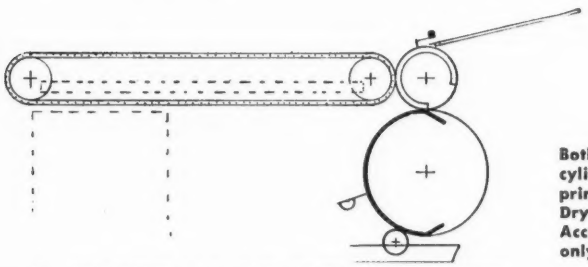
Small drying ducts below impression cylinder. Sheet passing to pile via transfer drum on tape carrier. Second table with lay for interleaving.

2. FRANKENTHAL, 1912.



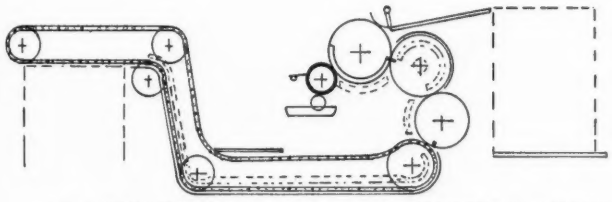
Already good drying system, inside drum and below impression cylinder. Sheet goes from big transfer drum to chain carrier and drops there on table between chains. Very compact machine.

3. JOHANNISBERG, 1915.



Both use plates instead of cylinders. Impression cylinder makes 2 revolutions to one of the big printing cylinder with plate arrangement. Drying by pipes between tape or chain carrier. Access to doctor difficult. Small-sized sheets only. Plates make storage easy.

4. MAILANDER or L. & M. PLATE MACHINES, 1929.



Modern standard type. Sheet travels via transfer drum and chain conveyors for retardation to pile delivery in front of press. Long drying ducts. Speed over 4,000 sheets p.h. To ascend step for inking and doctor control as sheet passes underneath machine. Difficult for cleaning.

5. JOHANNISBERG B.T.1, B.T.9 and FRANKENTHAL PALATIA, ca. 1927.

This camera, the "Multichrom", gives startling results and is now on the world market. All masking methods reduce quite considerably the time required for retouching previously done by hand, by 50% and more. Having made the corrected continuous-tone diapositives on plate or film, the next steps of the photogravure process are relatively simple.

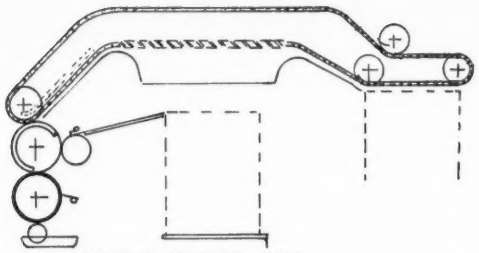
The positives are imposed on big plate-glass sheets which, in turn, are printed down on sensitized carbon tissue. These are then transferred by special transfer machines, to guarantee register — on to the copper cylinders or plates. The tissue is developed in hot water and leaves a gelatine relief on the copper. The etching is, of course, quite a delicate affair, but easily mastered by a conscientious person with good judgment, training and eyesight.

The proofing in European shops is usually done on the printing presses and will be discussed later on. As far as my information goes, practically all the big firms in photogravure make corrections on their cylinders and have developed quite interesting methods for either reducing certain colors or intensifying them. I know, for instance, that the "Trini" process sometimes achieves miracles in this respect.

Generally, the printing is done directly from the copper. As to runs, a 2-revolution machine allows up to 75,000-80,000 sheets; the more modern 1-revolution machines deliver easily up to 200,000 sheets from one cylinder without loss of detail if the copper is of a good quality. For longer runs, one usually reverts in both cases to chromium plating.

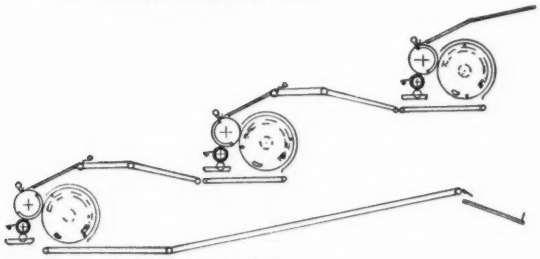
THE MACHINE side of this whole process is also very interesting. As early as 1910, pioneers had to choose between rotary printing from the reel (which is not discussed here, being the process for speed and mass production, while sheet work concentrates on high quality in every respect) and sheet-work printing with special machines built for this type of job.

Basically, the problem confronting the constructors was to obtain comparatively very heavy pressure to take the ink out of the little copper pits (photogravure actually requires almost fifty times the pressure necessary for offset), while at the same time the sheets have to be dry on reaching the delivery table. The diagrams opposite show quite clearly how the drying capacities of the machines were more and more developed, simultaneously with the introduction of special inks with high volatile solvents such as Benzol, Xylol, Toluol, etc.



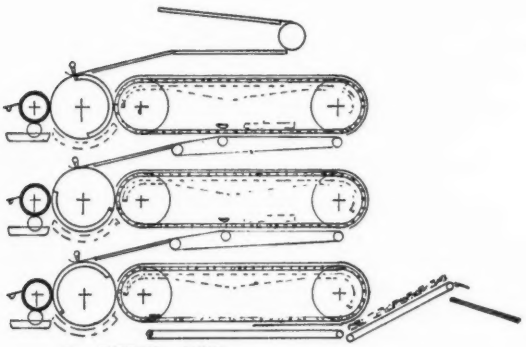
6. VOMAG OLYMPIA, 1935.

1-revolution system. Drying ducts on top. For retardation chain gripper bars changing from chains to worm shaft. Design easy to service, doctor position difficult. Speed up to 4,000 sheets p.h.



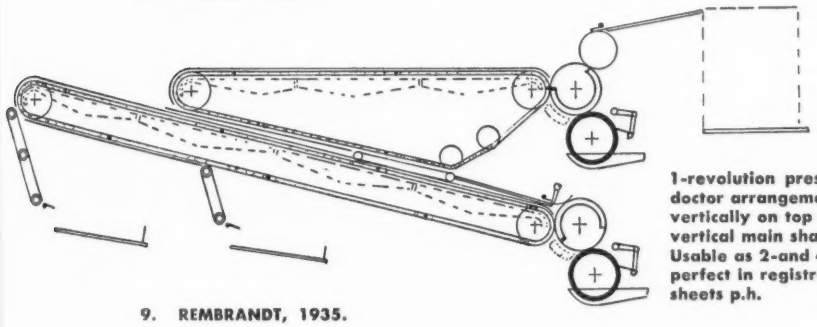
7. CASCADE LITI, 1925.

Three standard Johannisberg Liti machines joined together. Sheet travels from top unit to layboard of second unit for re-laying, and the same at third unit. Sheet finally carried on tapes underneath whole system to delivery table for control. Perfect registration and quality. 1,200 sheets p.h.



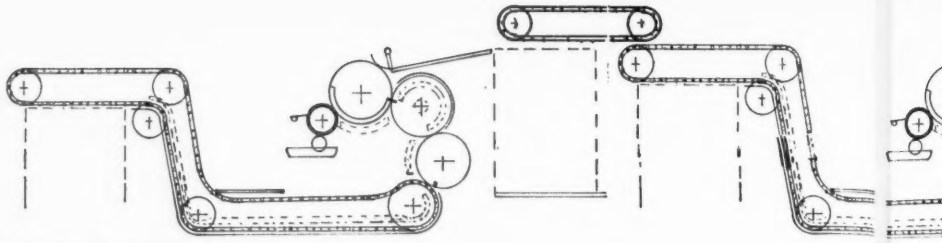
8. DUERER, 1928.

Three printing units arranged vertically on top of one another, all connected by spur gears for timing. Sheet travels in zig-zag course through machine. Long drying system. Big-sized sheets with perfect registration at 1,500 sheets p.h.



9. REMBRANDT, 1935.

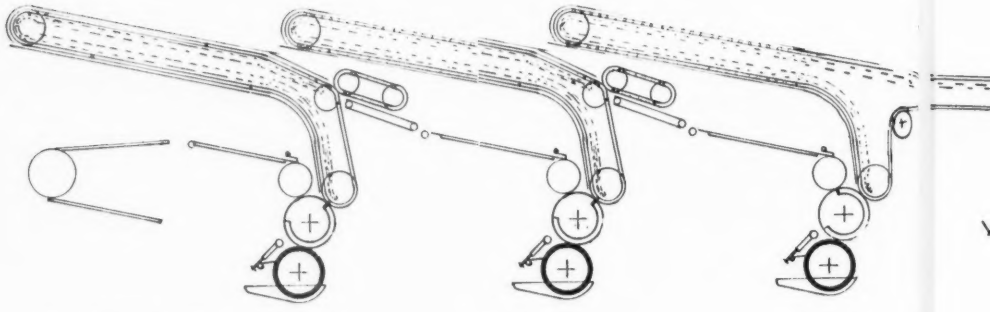
1-revolution press. No inking rollers. Variable doctor arrangement. 2 x 2 units arranged vertically on top of one another, driven by vertical main shaft. Very long drying section. Usable as 2-and 4-color Press. Very big sheets, perfect in registration and quality. 1,800 sheets p.h.



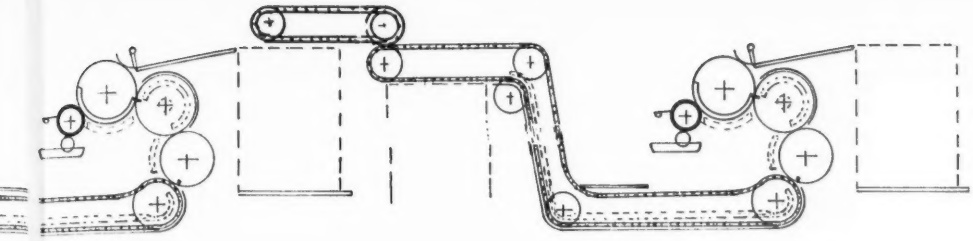
10. TANDEM PALATIA, 1934.

In spite of the really first-class results obtained by the various European printing houses, it is astonishing — at least from the economic point of view — that the majority of these firms are still printing their color work on single-color machines, transferring the sheets from one machine to the other. The most frequently used types are the Palatia, built by Albert & Co., Frankenthal, and the various constructions of the Maschinenfabrik Johannisberg, Geisenheim/Rhein. Both these types are 2-revolution machines, i.e. the copper cylinder makes two revolutions for each impression. Another make in use is the Olympia, formerly built by Vomag, Plauen, introducing the 1-revolution system into photogravure.

Generally, the printing is done from copper sleeves which are fixed on expanding mandrels. For multicolor printing, the use of solid cylinders — like those in the web presses — is becoming more customary. Owing to the high pressures used, copper sleeves tend to give slowly towards the centers, while the solid cylinders are much more rigid and therefore do not show this defect which can have such a bad effect on the registration.



11. HOLBEIN, 1949.

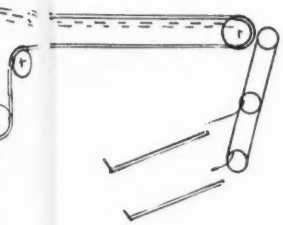


The inking of the cylinders in photogravure presses is usually done by inking rollers covered with plush or felt, or even with gelatine. The latest Schuenemann machines dispense completely with inking rollers, so as to reduce wear on the etched image.

From the very beginning, experiments were made with printing from plates instead of cylinders, as these obviously offer some advantage in handling, and their storage is easier. The difficulties of this construction are mainly connected with the problem of fixing the plates properly to the cylinder to allow a good running-on of the doctor blade, which is all-important in photogravure printing. There are quite a few of this type in use and on the market, foremost those of Mailänder, Stuttgart, and L. & M., London.

With regard to color printing on plate machines, opinion is divided. Generally, the big color photogravure printers believe that these plate machines are not the real solution for their type of work, because copper — being a soft metal — tends to give towards the tail end of the sheet, thus not only impairing the multicolor register, but also

above)
Three standard Palatia presses joined together and driven by one main shaft. Sheet travels from unit to unit by special transfer chain. Can also be used as single machines.



Cylinder arrangements as with 9, but single units are combined as required (Perfecting machine also possible). Long overlapping drying ducts on top of machine to save space and for easy handling. Steel frames, solid cylinders. 3,500 sheets (41 x 55″) p.h. and ca. 4,500 sheets (29 x 40″).

allowing only relatively small formats to be printed, as the bigger sizes would not stand the heavy pressures necessary for a good impression.

Actually, I know only of one or two printing houses doing multicolor work of an appreciable scale on plate machines, but all small-sized, and the printing is done on rather heavy material.

Multicolor printing on single-sheet machines sets the printers quite a number of problems. Apart from the purely economic factor of increased handling cost when printing on single-color machines, the technical reasons are quite as important. Owing to the high pressures which are necessary in this technique, the paper has to sustain quite a heavy strain which, in turn, makes first-class registration difficult. Therefore, one generally tries to overcome this problem by printing the various colors in the shortest possible intervals. One printer with some success in this line reports that they even transfer the paper in batches of 250-500 sheets, in order to be dead certain that nothing can happen. If left too long, the changes in the paper often make for great deviations in register, especially towards the tail end of the sheet, and mainly when printing big formats.

Another difficulty is the problem of color control, as only the third printing really shows any deficiencies in the previous printing of the yellow and red. Every color printer knows how easily variations occur.

It is surprising that in spite of the drawbacks just mentioned, there was only one multicolor photogravure machine on the market before 1939: the Tandem Palatia. This machine — a combination of three or more standard machines of the Palatia type — is in use at various European printing houses and gives very good results. But owing to the way the units are joined, the machine has a relatively great overall length.

Although the general trade had no part in it, it is worth recording the development of a series of multicolor machines at the works of one of the well-known printers of color photogravure, as his latest achievement is now available to the whole printing world.

At quite an early stage one of the pioneers in photogravure printing, Carl Schuenemann, of Bremen — who, apart from being a printer, is also an accomplished engineer — thought to overcome the above mentioned difficulties by using multicolor machines which allow the printing of three colors in one go. As early as 1925, he built the small "Cascade Liti", which was successfully shown for the first time at the "Pressa" Exhibition at Cologne. These machines, which are still

running, proved that they can eliminate at one stroke the major disadvantages of faulty register and unnecessary paper handling, thus reducing the costs quite considerably, while at the same time giving continuous control of the printed sheets throughout the whole run.

This first type of multicolor machine, with a relatively short drying duct (Fig. 10) allowed only runs up to 1,500 sheets per hour. But in view of the success of this printing technique, Mr. Schuenemann constructed in 1928 a new multicolor machine, called "Duerer", allowing comparatively big sheets. Apart from the highly increased drying capacity, the three cylinders were arranged vertically on top of one another, to give easy access; the performance of this machine was extremely good in every respect. The output was increased to 1,800 sheets per hour. However, in view of the growing demand, still bigger and quicker machines were wanted, and thus Mr. Schuenemann constructed a further model, the "Rembrandt". This was a combination of two 2-color machines which could be used either way: together as two units, or for printing four colors in one go. As the drawing shows (Fig. 9), the drying ducts of this machine were again increased, and with it the speed to 2,200 sheets per hour. Unfortunately, this machine was destroyed during the war.

Since 1946, Mr. Schuenemann has developed a new multicolor machine, the "Holbein", based on his many years of experience. This is built on the unit principle and incorporates all the improvements found to be necessary to make multicolor photogravure still more competitive with the customary multicolor printing processes such as offset and letterpress. Quite apart from the amazingly small space this big machine takes, by dint of overlapping the drying ducts it offers a speed of more than 3,000 multicolor sheets per hour, at the same time guaranteeing perfect register and drying. (A smaller type recently developed for the "Leiden" firm will even run 4,000 sheets). A number of additional improvements make for easy servicing and most economical working. The first models which have been installed are satisfying every expectation.

All the Schuenemann constructions up to 1940 were built specially for Mr. Schuenemann's own printing house, only his friends at Leiden having the benefit of this valuable development. Now, with the "Holbein" on the market, every printer can have this product of 25 years of experience in color photogravure.

In contrast to the other printing processes, the proofing in photogravure is generally done in the machine, one color after the other. The necessary corrections are carried out on the cylinder, which is then ready for

printing. Because of the comparatively high capital outlay on multicolor presses, interruptions must be reduced to the minimum, so the bigger printers have begun to demand special proofing presses. The Multicolor by Bouzard, Paris, is mainly used for this purpose in France, and Mr. Schuenemann has already on the drawing board a novel solution of this problem, very simple and economical.

Another quite important aspect of multicolor photogravure might be mentioned: as with all photogravure, the make-ready is fairly easy, since no special adjustments have to be carried out, as for instance in letterpress. Generally, make-ready and proofing a set of three- or four-color cylinders can be completed in 6-8 hours — a very short time indeed as compared with the other printing techniques. The best pressmen, incidentally, are those coming from letterpress printing, unless they were specially trained as apprentices in photogravure.

The paper question does not play such an important part in color photogravure as in the other printing processes. Practically every kind of paper can be used. Generally, the photogravure papers are only half-sized for better absorption; that again makes for greater economy.

In this connection it is worth emphasizing that, in general, color photogravure makes it possible to get very quick results. Big sheets with many illustrations, which would take weeks of preparation in other processes such as letterpress and offset, can be ready for proofing within a fraction of this time in photogravure. It is not unusual for these preparations to require only a week to a fortnight, according to the job involved.

In view of all this, the almost complete lack of sheet color photogravure in the States naturally makes one ask: "Why not — if this process is so good?" It is, of course, difficult to answer this from Europe without knowing the conditions in America more intimately. But the general opinion held here is that the development of multicolor letterpress and offset in the States is so far advanced, and so deeply entrenched, that a new process, requiring skill and care, has not yet had a proper chance.

It might be appropriate just to give a short résumé of the process and its performance. From the specimens included with this article it may be seen that the possibilities of multicolor photogravure are unlimited, and that the quality can only be compared with collotype, which is often out of the question because of its technical restrictions regarding speed and number of possible runs from one plate. Especially in view of developments in color photography, its twin brother color photogravure has no equal, both using the same three primaries for the reproduction of the color image. A further

advantage, the speed of the actual reproduction, has already been mentioned.

As to runs, European printers generally reckon that runs from 10,000 sheets onwards are quite economical and competitive with other processes, while higher runs of 50,000 sheets and more are even cheaper, in spite of their high quality. 200,000 sheets are regarded as the upper limit of runs with sheet machines, but I have heard of specially big runs, as much as 500,000 sheets, printed on sheet machines as no rotary press was able to offer the same quality. But as work of the highest quality does not generally demand very big runs, and as smaller editions are usual in Europe, multicolor photogravure is ideally suited for this type of work. It might be mentioned that the new multicolor machines, with an hourly output of 3,000 perfectly registered sheets, actually deliver 9,000 - 12,000 prints per hour.

The attached specimens prove that multicolor photogravure allows a richness in body and tone values which the other processes — using screens — simply cannot give without resorting to special means such as multiple proofing, fine etching, high-class art paper or special additional colors. The particular beauty of this process is the wonderful photographic definition, always retained down to the finest detail. No wonder that the finest art editions in Europe are now to the greatest extent printed in color photogravure. However, that its uses are not restricted to fine art work is proved by the specimens attached which cover practically all fields of color reproduction.

Not only European publishers but also some of the more discriminating American firms have apparently also discovered the superiority of this process, and are already printing in Europe. There is now quite an impressive list which, for obvious reasons, I cannot detail. I just want to mention one of the pioneering firms in this line, Chanticleer Press Inc., New York, who have published during the last few years quite a number of interesting books completely executed in photogravure which proved to be very successful. A few of their titles are: "American Furniture" by Charles Nagel, "Behold the Mountains" by Frank S. Smythe (reproduced entirely from Kodachromes, partly miniature films), "From Cave Painting to Comic Strip" by Lancelot Hogben, etc.

However, not only publishers are coming round more and more to color photogravure: commercial printing profits as well from such a fine quality. As a matter of fact, there is no field of commercial printing where color photogravure has not been used in Europe. It even seems that a new specialty is beginning to develop — photogravure for high-class packaging. This is an interesting sideline in photogravure printing: gold prints

beautifully in this process, and all the cumbersome powder bronzing still generally used can now be dispensed with.

I hope I have succeeded in showing that sheet color photogravure is a development which deserves serious attention. Certainly, this process is not suitable for mass production where quality is of less importance. But as color photography is only in its infancy, and as its uses will be spreading still more in the future, photogravure — as its twin — will certainly claim a greater chance. There is no doubt that, with color photography on the increase and with the majority of films in Technicolor, the demand for more color work in printing will be growing for many years to come. Photogravure is the process with the shortest possible time-lag from the original to the finished print and thus demands the fewest man-hours in spite of high-class results. Coming developments (color negative films, new types of quick-drying inks, and automatic color control) will make the whole process even more economical and easier to handle.

E. Braun, Mulhouse-Dornach, France ***Insert I***

This firm, founded in 1848, early became famous for its studios which made photographs of art in museums all over Europe. The founder was court photographer to Napoleon III. The plant has used the photogravure process since 1930 and is now widely known for its fine art reproductions done with three colors. The specimen here shown is from a book about the work of Picasso. The printing was done on single Marinoni and Palatia presses.

Printed in three colors on three single Palatia machines
by Etablissement Braun & Cie, Mulhouse-Dornach, France.

PICASSO: BULL-FIGHT (1901)

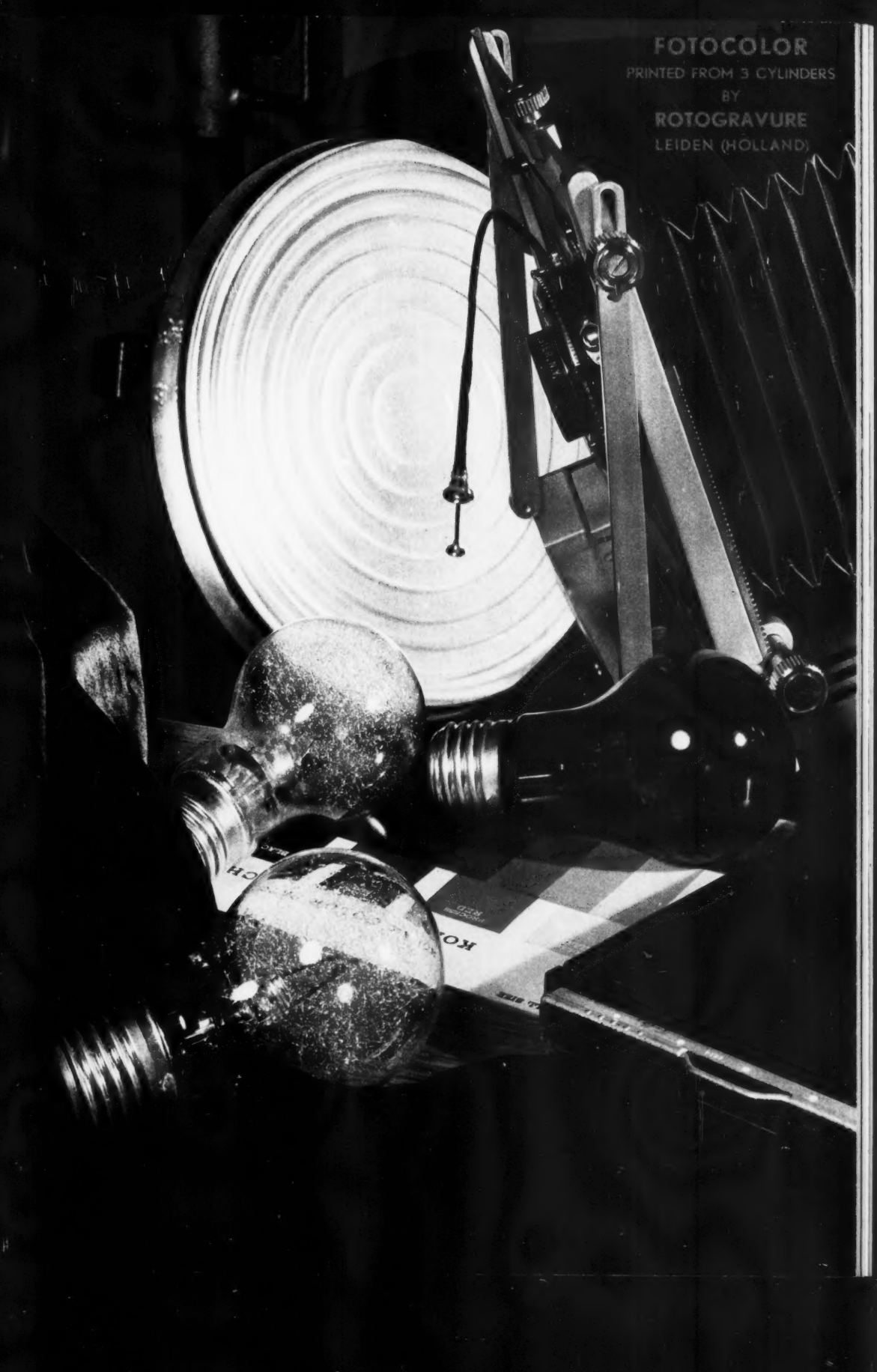
Printed in 3 colours on three Polatin I machines
BY ETABLISSEMENTS BRAUN & CIE, MULHOUSE-DORNACH, FRANCE.

Founded in 1913, this firm was developed with the help of several German inventors, particularly Dr. Nefgen. It has used photogravure since 1916. The "Leiden Process" for color reproduction has fostered many other photogravure printers all over the world. Today this is the largest color photogravure plant in Holland and is well known for the quality of its art reproductions and commercial printing for publishers in Europe and America. The specimen represents some fine examples of three color printing with a variety of subject material. This insert was printed on multicolor machines using the Schuenemann system, such as Cascade Liti and Duerer presses.

Printed in three colors in one go on three color Liti-Cascade machine
by Nederlandsche Rotogravure, Leiden, Holland.

FOTOCOLOR
PRINTED FROM 3 CYLINDERS
BY
ROTOGRAVURE
LEIDEN (HOLLAND)

FOTOCOLOR
PRINTED FROM 3 CYLINDERS
BY
ROTOGRAVURE
LEIDEN (HOLLAND)


FOTOCOLOR
PRINTED FROM 3 CYLINDERS
BY
ROTOGRAVURE
LEIDEN (HOLLAND)

FOTOCOLOR
PRINTED FROM 3 CYLINDERS
BY
ROTOGRAVURE
LEIDEN (HOLLAND)

Héliogravure-Phototypie Sapho, Paris ***Insert III***

Fine art reproductions and top quality reproductions are specialties of this house. Their printing is done on Olympias and Johannisberg single machines. The specimen shown here is especially interesting as the reproduction was made without the usual screen in order to retain the effect of the old lithographic technique.

Reproduction in four colors from a crayon drawing
printed on single Olympia machines
by Societe Sapho, Paris.

COLOURED LITHOGRAPHY
Reproduced in 4 colour photogravure
without regular screen.

Printed by Heliogravure-Offset
S. A. P. H. O. Paris France

PRINTED IN FRANCE

Sun Printers and Rembrandt Photogravure Ltd., Watford ***Insert IV***

The beginning of photogravure printing at this firm goes back to the early days of Charles Klietsch, one of the co-inventors of this process. Printing here started in earnest in 1910, and today this firm is probably the biggest photogravure printer in the world. Their output is considerable: about 1,500 tons of paper per week are used regularly. The Managing Director is Mr. Charles Cook, the international expert on rotary gravure. The firm is *the* quality photogravure printer in England, and has developed color work along conventional lines. Sheet work is done on single machines, mainly Olympias and Palatias. The specimens are four-color jobs.

Reproduction from Ektachrome in four colors, printed on single Olympia machines
by Sun Printers, London and Watford.

The Gayest Shoes seen for a Century

Printed in 4-colour photogravure by Sun Printers, Ltd.,
London & Watford, Herts.

By Courtesy of "Picture Post."

The President and Mme. Auriol in a Reception Room of the Elysee

Printed in 4-colour photogravure by Sun Printers Ltd., London & Watford, Herts.

By Courtesy of "Picture Post"

Trini Druck of Carl Schuenemann, Bremen ***Insert V***

This firm, more than 200 years old, has used photogravure since 1911, and color on a large scale since 1922. Its "Trini Process" is well-known internationally. Before the war, they were the biggest sheet color photogravure printers in Europe and had a great output in high-class commercial printing from art reproductions to cookery books, labels and packages. The whole photogravure works — which were looked upon by experts as a model of organization — were destroyed by bombing. They are rebuilding and resuming work again.

Color photograph with Reckmeier One-Shot Camera
printed in three colors on a Multi-color press Duerer
by Carl Schuenemann, Bremen.

RED CURRANTS • Phot. Inge Petersen

TRINI SPECIMEN

Printed in 3 colors on Multicolor Press DÜRER by Carl Schünemann, Bremen

WHAT IS GRAVURE?*

GRAVURE is intaglio printing. In *principle* it is identical to the method employed by many artists who, more than five hundred years ago, discovered that a picture, etched or engraved on the surface of a copper plate, could be transferred in ink to paper and thus produce a number of "originals" instead of a single creative work. Rembrandt, Durer, Whistler — to name a few — mastered this art to create intaglio prints of enduring beauty. The reasons for its appeal to artists as a fine arts medium are easily perceived in masterpieces such as those by Robert Nanteuil whose superb portrait of King Louis XIV, engraved nearly three hundred years ago, is reproduced on the opposite page. In the achievement of minute detail and diverse tonal values, the art of intaglio printing is unsurpassed by any other one-color medium of graphic expression. That is why fine intaglio prints are prized by collectors and treasured by museums of art.

The literal translation of the word "intaglio" is clearly descriptive of the process. It means, quite simply, "to cut into." That is exactly what an artist does when he etches or engraves an image on the plate from which his "etchings" are printed. His pictorial creation is scratched, etched with acid, or incised with a graver into the polished surface of a copper plate. The resulting depressions, in lines or wells of various depths, are then filled with ink spread over the plate surface; when wiped clean and impressed on paper the plate surface yields the ink remaining in the depressions, thereby transferring the ink-filled lines of the image to paper.

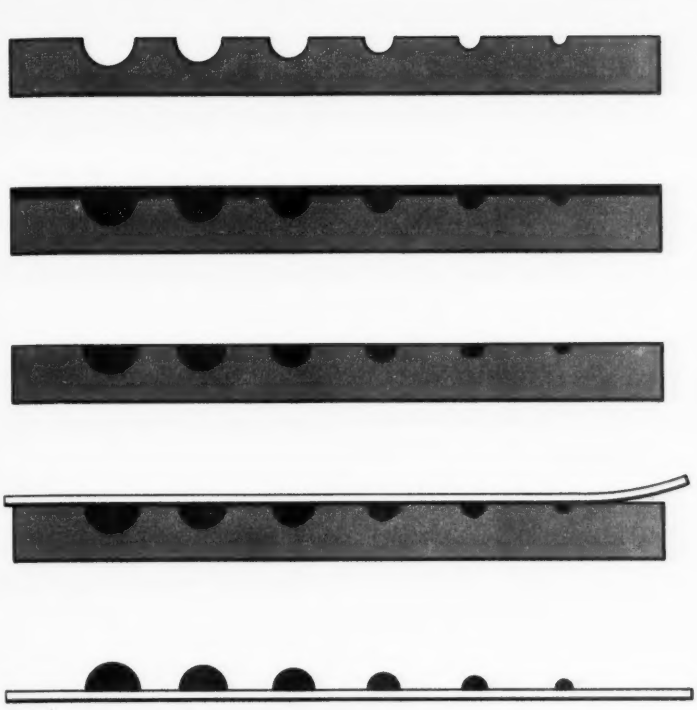
The creation of such works of art is a painstaking and highly technical procedure, the difficulties of which we do not mean to minimize by the simplicity of this description. Of the several kinds of intaglio plates, however, the copperplate engraving and the etching are the easiest to comprehend. Our reference to them, therefore, is intended to clarify our description of the Gravure process, which is the modern, photomechanical application of the basic principle on which this ancient art was conceived.

Unlike the art of intaglio engraving and etching, however, photogravure is not a *creative* medium. It is a purely *reproductive* process in which the intaglio principle is employed. While this principle is inherent in each of the several forms of intaglio engraving, there are two important features of departure (one in the plate, another in the printing) which distinguish the photogravure process in means and result. In copperplate engraving, for instance, gradation of tone is achieved by the *relative proximity* of the incised lines of the image — the *closer the lines,* the *darker* the tone. In photogravure, gradation of tone is produced by the *relative depth* of the pattern of minute cells by which the image is rendered on the plate — the *deeper the cells,* the *darker* the tone.

In printing copperplates, the ink employed is stiff and dense and is of uniform blackness on the print. The ink used in photogravure

* From the book *BECK GRAVURE* by courtesy of The Beck Engraving Company.

Micro-photographic enlargement (above) of a small section of an etched gravure plate (outlined in white at right) shows the cell construction typical of conventional screen gravure. Note how the depths of the cells vary in highlights, middle tones and deep tones — the deeper the cell, the darker the tone.



Cross-section drawing of an intaglio line engraving, showing lines of varying depths and widths etched or incised into the surface of the plate.

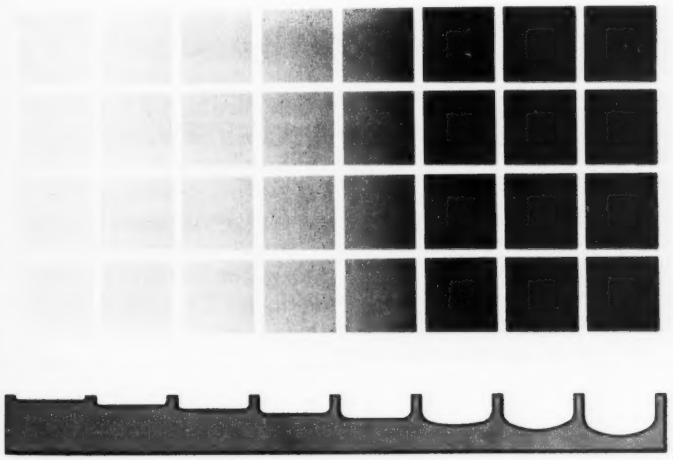
Ink is applied over entire surface of the plate, thus filling the depressions.

The plate surface is wiped clean, leaving a deposit of ink in the depressions.

Paper is brought into contact with plate under pressure.

The ink remaining in the depressions is transferred to the surface of the paper.

FIGURE A. THE PRINCIPLE OF INTAGLIO PRINTING



Enlarged view of a conventional gravure etching proof showing the gradations of tone obtained by varying the depth of etch in the screened plate. The printed tones shown in the upper panel correspond with the depth of etch in the plate shown in the cross-section drawing below.

Note that the etched cells are of the same size, but of varying depth — the deeper the cell, the darker the tone.

FIGURE B. THE PRINCIPLE OF GRAVURE PRINTING

PHOTOGRAPH BY MARGARET BOURKE-WHITE

printing is extremely fluid — it is transparent and light in tone in areas of shallow deposit; it is dense and deep in tone in areas of heavy deposit.

The photogravure etching, being a meshwork of tiny cells of varying depth, transmits to the paper a varying amount of ink when the printing impression is made. The illustration on the following page reveals this characteristic feature of photogravure reproduction in a greatly enlarged photograph of an etched plate.

How Photogravure Reproductions Are Made

It is not the intention or purpose of this book to set forth each of the technical details in the photogravure process of reproduction. The broad-terms with which it has been described thus far, and a glance at the diagrams and illustrations on the following pages, may suffice as an aid to the general understanding of this process. But for those who desire a more specific explanation of the technique employed, the process is outlined briefly here in its normal sequence of operations.

1 · PHOTOGRAPHY · The original copy (drawing, painting, print, etc.) is photographed and the resulting continuous-tone negative (no screen) is retouched to eliminate imperfections and to insure the retention of all the tone values of the original. From this negative a continuous-tone *positive* is made in the desired size and in values scientifically calculated to reproduce the original, tone for tone.

2 · LAYOUT · The several elements to be incorporated into the plate (illustrations, type matter, decoration) — all now in the form of "positives" — are assembled and arranged in position to conform to the original layout in which relative location, margins and sequence of pages have been predetermined. This assembly, fastened together into a single unit, is the "positive form."

3 · THE PRINT ON CARBON TISSUE · Carbon tissue is the medium by which the image is transferred to the plate surface prior to etching. It is a gelatin-coated sheet of paper. Chemically sensitized to the effect of light, it possesses two properties vital to the photomechanical process: (a) the gelatin deposit hardens in proportion to the intensity of the light reaching its surface; (b) this deposit becomes insoluble in water in ratio to the degree of exposure. The carbon tissue is first

exposed to light passed through a glass photogravure screen, the opaque surface of which is covered with a mesh of fine, transparent lines. These lines, usually numbering 150-175 lines to the linear inch, are intersecting so that a pattern of minute squares is formed. The light passes through the transparent lines and hardens the gelatin thus exposed. A second exposure is made through the positive form which admits light to the screened gelatin of the carbon tissue in ratio to the variable density of the positive image. The light, being retarded least by the transparent highlights of the positive, hardens the gelatin in those areas to a depth relative to the degree of its intensity, and so on, through the scale of tone values to the darkest, most opaque areas of the positive which reduce the intensity of the light and, therefore, the depth of its penetration in those areas. The highlights thus are rendered in the greatest depth — the shadows in the shallowest depth — of hardened gelatin deposit.

4 · THE TRANSFER · The printed carbon tissue is squeegeed on to the wet surface of a flat, highly polished copper plate to which the gelatin adheres. Hot water loosens the paper backing and dissolves the unhardened or soluble portions of the gelatin. The remainder is the "carbon resist" — a coating of variable depth of deposit of hardened gelatin comprising the cellular photo-image to be etched into the plate surface. Those areas of the plate not subject to etching are painted over with acid-resisting asphaltum. The type matter and other line work are also painted over at this stage because they are etched separately from the continuous-tone pictorial elements.

5 · ETCHING · Acid is now applied to this prepared plate surface. The thinnest areas of the gelatin deposit (the darkest areas of the positive) are quickly penetrated by the acid; these will be the deepest wells etched into the surface of the plate. Subsequent applications of acid, progressively diluted with water, continue the action of acid penetration in the thicker areas of the gelatin resist (the middle tones of the positive) by the gradual softening effect of the added water on the gelatin deposit. The thickest cells of gelatin (the highlight areas of the positive), being more resistant to the penetration of the acid, are the least deeply etched; these will be the shallowest wells etched into the surface of the plate. The gelatin in the screen lines is hard enough to completely resist the penetration of the acid. Since these lines do not etch, they become the thin copper walls which separate the wells etched into the plate surface.

PHOTOGRAPH COURTESY OF STEUBEN GLASS, INC.

Gravure gallery where skilled cameramen make color separation negatives and positives of full color copy, as well as continuous-tone negatives and positives from monotone copy. The latest developments in color correcting are employed in the gallery to eliminate the need for excessive retouching.

Densities of positives are carefully checked on a densitometer to make certain that the proper tone values are present as these will affect final printed result.

Expert retouchers work on negatives and positives to restore any values that may be lost by the camera. Color correcting is also completed by the retouchers, and color "faking" or alterations in copy can be done when required.

Gravure layout room, where positives are assembled and laid out in the proper imposition for printing on the carbon tissue. This stage in making a gravure plate compares with form lockup in letterpress printing. Illustrations, body type and captions are carefully lined up in their proper position.

Gravure plates are etched with iron chloride after they have been staged with asphaltum. Here, the quality of the printed result issues from the skill of gravure craftsmen whose experience and knowledge determine when the plate has been etched to the proper depth.

With steady hands and sharp eyes, gravure finishers deftly employ engraver's tools to eliminate defects in the finished plate. Subjecting the plate to minute scrutiny, these craftsmen strive for perfection in every detail.

Plates are fastened securely in place around the plate cylinder. No make-ready is used under a gravure plate although the packing may be varied under the rubber blanket on the impression cylinder to give the desired pressure. Plates are corrected by burnishing or re-etching while on the press.

6 · FINISHING AND PROVING · The etching completed, solvents are applied to the plate in order to remove the asphaltum resist and the gelatin residue. The plate is cleaned and polished and minutely examined for imperfections. Proofs of the plate are compared critically with original copy. Plate finishers make corrections in color values, where necessary, by burnishing the plate to reduce tone or by etching to increase tone values.

7 · THE GRAVURE PRESS · The flat copper plate on which the image is etched is flexible to the extent that it can be readily bent around and clamped to the plate cylinder of the press. An ink roller, rotating within the ink fountain, floods the plate surface as the press goes into operation. As the plate cylinder rotates, a flexible steel blade brought into close contact across the face of the plate wipes the ink from the *plate surface*. The ink remaining in the etched wells then is transferred to the paper which is fed one sheet at a time and is pressed against the plate by a rotating, rubber-blanketed impression cylinder.

The ink employed is of watery consistency. By "bleeding" over the top of the etched well walls, the ink almost obliterates the visibility of the white screen lines. This action, plus the extremely minute size of the ink wells, contributes to the continuous-tone effect of photogravure reproduction and makes possible the rich depth of tone and the remarkable degree of fidelity to the original copy that are characteristics of the gravure process.

Copy for Monotone Gravure Reproduction

QUESTION: *Are there any limitations in the preparation of art work for gravure reproduction?*

ANSWER: There are no limitations in the preparation of art work. It is preferable, where possible, to have the art work prepared for a one-half reduction, since this usually provides for the retention of greater detail.

QUESTION: *In preparing photographic prints for gravure reproduction, how should they be finished for best results?*

ANSWER: Good glossy prints, having full tone values, are usually preferable for gravure reproduction. Prints that are too contrasty or too flat should be avoided unless a contrasty or flat printed result is desired.

QUESTION: *Can old photographs that have yellowed with age, or old sepia prints, be used successfully in gravure reproduction?*

ANSWER: While it is more difficult to reproduce copy of this nature than good photographic prints, gravure can reproduce old photos and sepia prints more successfully than other processes. Gravure makes it possible to improve on the original copy and to restore many tones that were lost due to age.

QUESTION: *What type faces are best suited to gravure reproduction?*

ANSWER: Any type faces can be reproduced satisfactorily, provided that good glassine proofs are used for reproduction and suitable paper is used in the printing. When glassine proofs are not used, however, it is generally better to select type faces in which serifs are not too fine.

QUESTION: *What kind of type proofs are best for gravure reproduction?*

ANSWER: While good reproduction proofs can be used successfully for most commercial work, better results can usually be obtained from glassine, or acetate, proofs. The new photo-typesetting machines provide excellent type films for gravure reproduction.

QUESTION: *How should copy be prepared for monotone gravure reproduction?*

ANSWER: The answer to this question depends to a large extent on the nature of the job and whether economy is the primary or secondary consideration. For the average commercial work, where economy is usually a factor, a real saving can be made by pasting up copy in pages or spreads so that the whole page or spread can be photographed at one time, thus eliminating the need for scaling and cropping copy and positioning positives into pages. If reproduction proofs of type are used, the type proofs can also be pasted into position on the pages, which will effect a further saving. For all work where economy is of secondary importance, it is better to supply copy in individual pieces, properly scaled and with crop marks indicated. This will enable the gravure gallery to treat each subject separately and make a negative that will get the most out of the original art work. If the copy negatives are available, they can often be used to provide a better result and, since this eliminates the need of making negatives, at a saving in cost. If the copy negatives are not good and require considerable retouching, it would be better to supply glossy prints.

Copy for Two-Color Gravure Reproduction

QUESTION: *How should copy be prepared for two-color process gravure?*

ANSWER: The answer hinges to a great extent upon what is desired in the printed result. Since there are many ways to prepare copy, and since each has its advantages under certain conditions, it is best to consult with the printer so that the best method may be selected for the individual job. Many striking results may be obtained in two-color gravure, but careful planning of copy, with cooperation between the printer and the artist, is the best method of getting effective two-color results.

QUESTION: *How should copy be prepared when the second color is for decorative effect only?*

ANSWER: Generally speaking, copy for a decorative second color should be made up as an overlay on acetate or as a separate piece of copy with a tissue overlay showing position. Here again, however, costly mistakes may be avoided by consulting the printer before copy is prepared.

QUESTION: *Is there any limit to the number of color combinations that can be used in two-color gravure?*

ANSWER: No. Since the color range of gravure inks is unlimited, the only limitations are those imposed by the artist or designer.

QUESTION: *Can split fountains be used in gravure the same as is done in letterpress?*

ANSWER: No. The nature of gravure inks and the way in which the ink is handled prohibits the use of split fountains. The same two colors must be used over a complete form.

Copy for Three or Four-Color Gravure Reproduction

QUESTION: *Is there any limit to the kind of copy that can be reproduced in full color gravure?*

ANSWER: No. Any kind of copy from Kodachrome transparencies to art copy in full color can be used for gravure reproduction.

QUESTION: *Is it practical to use gravure for the reproduction of copy employing a large number of flat tints?*

ANSWER: While flat tints can be reproduced well in gravure as a separate impression, it is better not to combine tints with halftone illustrations on the same form.

QUESTION: *How should copy be prepared for reproduction in three or four-color gravure?*

ANSWER: While the method of preparing copy for color gravure will vary to some extent (depending upon the type of work and circumstances), it usually is desirable to make up all copy for the same reduction so that as many pieces of copy as possible can be grouped together when making separation negatives. Since every job will have its own peculiarities, it is best to consult your printer before copy is prepared.

QUESTION: *What can be done in the preparation of copy for color gravure that would help to hold down the cost of production?*

ANSWER: In nearly every job there are certain short cuts that will provide appreciable savings in over-all production costs. It is always advisable to consult the printer in advance of the preparation of copy so that maximum savings may be effected.

QUESTION: *Is there any type of art work that can be reproduced more cheaply than others?*

ANSWER: Yes. Water color copy painted with the new Eastman fluorescent water color paints can be reproduced in three-color gravure at a saving of approximately one-third in the cost of plates.

Gravure Ink

QUESTION: *What is the nature of gravure ink?*

ANSWER: There are many different types of gravure inks that are used for printing on various types of paper and under varying press conditions. All gravure inks contain a high percentage of solvent, however, and are much more fluid than letterpress inks. There are several types of solvents that are used as bases for gravure inks and each of these has its own peculiar characteristics as to speed of drying, glossiness and adhering qualities. Lacquer base inks, for example, are used primarily on high speed rotogravure presses for printing on metal foil papers and plastic films, although these same inks can be used to achieve certain desired effects in sheet-fed gravure.

QUESTION: *What colors are available in gravure inks?*

ANSWER: There are virtually no limitations to the variety of colors and shades that are available in gravure inks. Any color can be matched satisfactorily in gravure ink—usually with more speed and at less cost than in other processes.

QUESTION: *Is it possible to obtain a gloss finish with gravure inks?*

ANSWER: This will depend to a large extent on the paper that is being used. On coated stocks or other papers having a hard, smooth finish it is possible to achieve a gloss finish. On antique stocks it is possible to achieve a semi-gloss finish, but the character of the paper used will determine the degree of gloss that can be obtained.

QUESTION: *Do matte finish gravure inks have a tendency to burnish when rubbed, or to offset, during the folding and binding process?*

ANSWER: There is a tendency for all matte finish inks, in every process as well as in gravure, to become easily scratched or burnished, and also to offset in the bindery. This factor can be controlled to some extent, however, by the amount of binder used in the ink. Again, the nature of the paper plays an important part. It is always best to know well in advance what

paper is going to be used so that the proper inks can be made up.

QUESTION: *Can gravure inks be lacquered or varnished to protect them and to provide a semi-gloss, or gloss finish?*

ANSWER: Yes. Gravure inks can be successfully lacquered, varnished, or laminated. On antique stocks there are instances when it is necessary to apply two impressions of lacquer or varnish in order to attain desired results. The printer should be advised in the beginning when jobs are to be lacquered, varnished, or laminated so that the proper inks can be used.

QUESTION: *Are gravure inks permanent?*

ANSWER: All inks, regardless of the process in which they are used, are fugitive to a certain extent—some inks more than others. In cases where the printed gravure piece is to be exposed to direct light over long periods of time (such as calendars, prints, and posters), it is possible to use gravure inks that have a minimum fade factor. Non-fugitive inks should always be specified in these cases, while keeping in mind that non-fugitive inks cost more than standard inks.

QUESTION: *Are gravure inks transparent or opaque?*

ANSWER: Gravure inks are obtainable in either transparent or opaque colors. Opaque colors are used mainly for printing on plastic films or as first down tints on paper. For process color printing, the inks must be transparent to provide good, clean color reproductions and to produce the intermediate colors. Even in monotone gravure, the inks must be transparent in order to obtain an adequate range of tones.

Paper for Gravure Printing

QUESTION: *What kinds of paper can be used for gravure printing?*

ANSWER: While it is true that a halftone illustration can be printed by the gravure process on any kind of stock from blotting paper to metal foil paper, it must be kept in mind that for fine quality printing, the paper should be carefully selected and specified. The characteristics of paper vary greatly, even within a single classification. A 25% rag sheet made by one mill, for example, will be entirely different from a 25% rag sheet made by another. This is due to the variety of pulps, fillers, opacifiers, etc. that are used. Because gravure will print well on one 25% rag paper, this does not mean that it will print equally well on all 25% rag papers. Cleanliness, moisture content, cushion, and formation are four vitally important factors in gravure paper. To make sure that the finest possible printed result is achieved, it is recommended that, once the classification of paper to be used has been decided upon (sulfite, rag content, coated, etc.), the buyer of printing get the specifications for that class of paper from the printer.

QUESTION: *Can watermarked papers be used?*

ANSWER: A watermark in a paper will usually show itself on the printed area of the paper and is therefore not recommended for monotone gravure. It can be used for color gravure provided that the watermark is not too pronounced.

Gravure Plates

QUESTION: *What is the maximum number of impressions that can be run on a copper gravure plate?*

ANSWER: The maximum number of impressions that can be obtained from a copper gravure plate will vary according to (1) the hardness of the copper in the individual plate, (2) the paper that is used, and (3) the degree of pressure that is required to make the plate print properly. Under ideal conditions, a copper plate will stand up for 50,000 to 100,000 impressions. Since it is impossible to predetermine all the conditions to be met, however, it is strongly recommended that the plates used for any printed piece requiring more than 25,000 impressions, either on the initial run or on reprints, be chrome-plated prior to printing.

QUESTION: *How many impressions can be obtained from a chrome-plated gravure plate?*

ANSWER: Here again, the maximum number of impressions obtained will be dependent upon the hardness of the chrome-plating, the kind of paper used and the amount of impression necessary. A chrome-plated plate should stand up for a minimum of 200,000 impressions and a maximum of 1,000,000 impressions.

QUESTION: *If a chrome-plated gravure plate begins to show signs of wear, is it necessary to make a new plate?*

ANSWER: Not necessarily. When signs of wear occur in the early stages of presswork, it is practical to have the chrome-plating stripped off and have the plate re-chromed. A re-

chromed plate should stand up for an additional 200,000 to 1,000,000 impressions.

QUESTION: *How long can gravure plates be kept for reprints?*

ANSWER: Indefinitely. Proper storage facilities are provided for all gravure plates and they will not deteriorate with age.

QUESTION: *If a copper gravure plate shows signs of wear can it be restored or must a new plate be made?*

ANSWER: This depends largely upon the amount and nature of the wear that has occurred. In many cases it is practical to restore the worn areas.

QUESTION: *Can changes be made in a gravure plate after it has been etched?*

ANSWER: This will depend entirely upon the nature of the changes. If they are very extensive it would be quicker and less costly to make a new plate. If the changes are relativley minor, however, and the layout of the form permits, it is possible to make corrections on an existing plate.

QUESTION: *Who owns a gravure plate once it is made?*

ANSWER: In general practice, the customer owns the plate and is free to do with it whatever he chooses. All negatives and positives made by the printer in the preparation of the plate are the property of the printer and cannot be used by the customer without the consent of the printer.

Miscellaneous Questions on Sheet-fed Gravure

QUESTION: *Is it possible to see proofs for approval?*

ANSWER: Yes. In the case of monotone, or two-color gravure, press sheets can be submitted before the job is run on the press. Because this holds up a production press the approval of the sheets should be expedited as much as possible. Very often it is possible and desirable for the customer to approve these sheets in the printer's office. In the case of three or four-color process gravure, it is possible to submit progressive proofs of individual subjects for approval before the production plates are made. In this case, time is not a factor except as it bears upon the delivery date of the finished job.

QUESTION: *Can tonal corrections be made where desirable on gravure press plates?*

ANSWER: Yes. Any area can be burnished or re-etched to obtain less or more color as desired.

QUESTION: *What is the production speed of monotone gravure presses?*

ANSWER: The average production speed of Sheet-fed Gravure monotone presses is 3,000 sheets per hour. Some jobs will run more or less than this, depending upon the nature of the work.

QUESTION: *What is the production speed of color gravure presses?*

ANSWER: The average production speed of Sheet-fed Gravure color presses is 3,000 sheets per hour. Some jobs will run more or less than this, depending upon the nature of the work.

QUESTION: *What are the maximum press speeds?*

ANSWER: Sheet-fed Gravure presses have a maximum speed of 6,000 impressions per hour.

QUESTION: *What size sheets can be run in Sheet-fed Gravure?*

ANSWER: Minimum sheet size is 5″ x 7″ and maximum sheet size is 29″ x 43″.

QUESTION: *What is the cost of Sheet-fed Gravure?*

ANSWER: When Sheet-fed Gravure was first introduced to this country twenty years ago, its cost in relation to other processes was high. For that reason and also because of its distinctive appearance, many people have come to think of it as a premium priced process. With the development of new, high speed presses and new methods of plate making and proving, however, the relative cost has steadily declined to the point where it is now comparable in cost to other good printing. In many cases the cost is even lower than that of other processes. Since no two printing jobs are exactly alike, however, it is impossible to generalize regarding the cost.

QUESTION: *How does make-ready time in gravure compare with that in other processes?*

ANSWER: There is very little make-ready time in gravure printing. For the average work, make-ready amounts to approximately two hours per form. On this basis, for example, a three-color gravure form would require approximately six hours make-ready.

QUESTION: *How does the cost of reprints in gravure compare with the cost of reprints in other processes?*

ANSWER: Since gravure plates may be stored indefinitely without deterioration, and since there is very little make-ready time required, the cost of reprints in gravure is generally lower than the cost of reprints in other processes.

NOTES ON THREE ADVERTISING BOOKS FROM DRAEGER FRÈRES, PARIS

AMONG the many examples of color gravure work sent to PRINT for the article on page 1 are three advertising books from the presses of Draeger Frères, Paris, two of which were produced for perfume houses (Bienaimé and Molinard) and the third for the presentation of examples of Draeger Frères' "301 Process." These are picture books of the most luxurious order, and the workmanship implicit in their *three-color* gravure reproductions is seldom met with on this side of the Atlantic.

This is especially true of Draeger Frères' own book. On pages of majestic proportion (11⅜ x 14⅞ inches), fifteen color photographs, presumably made especially for this book, are reproduced with almost unbelievable fidelity and beauty. While the first three pictures are somewhat trite in their subject matter, the succeeding dozen easily make up for this minor fault. Some of them are disarmingly simple photographs—a shimmering plate of oysters on a dark bed of sea-weed, or half a hard-boiled egg, gold and white, on lettuce leaves—some of them engagingly clever compositions, such as that entitled "The Little Anarchist." Against a plain dark blue background, the artist-photographer has placed a large red balloon floating next to the chimney of a lighted parlor lamp to which it is tied—creating with these simple means a remarkable feeling of suspense.

Interspersing the reproductions, striking initial letters, one to a page, spell the name D R A E G E R . This is advertising in the grand manner; the book carries no sales message, as such—none is needed! However, on the first few pages, printed in 42 point Garamond italic, is a brief, literary foreword, extracts from which, in 54 point italic, are printed in gray on some of the pages facing the photographs.

All in all, a magnificently noteworthy volume in the ranks of advertising matter.

fjl

AND BY WAY OF CONTRAST A ROTOGRAVURE PROJECT

THE largest printing job on earth is to be done by *rotogravure*, beginning in May. The Hearst Publishing Company has announced a contract with Cuneo Press, Inc. for the new streamlined American Weekly, ten million copies per week. The printing will be divided between the new Weehawken, New Jersey, plant, the Chicago plant and the San Francisco plant. The reasons for changing from letterpress to rotogravure are given by the Hearst editor thus: "More dramatic effects possible in bleeding the pages, better adapted to the reproduction of color photography and the use of the popular glossy inks, and the best opportunity for quality in speed printing."

THE DELICATESSEN MAKER, ETCHING BY JOHN W. WINKLER

ORIGINAL 9¼" x 8⅛"

FROM THE COLLECTION OF JOHN TAYLOR ARMS

The Delicatessen Maker

By JOHN W. WINKLER, N. A.

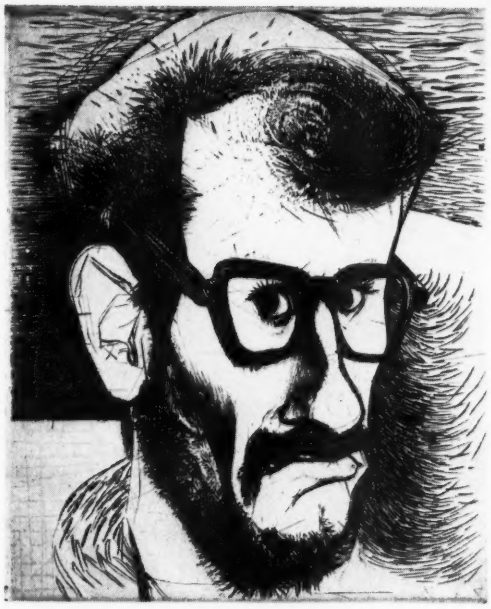
"THE most intellectual expression in art is line developed by selection . . . . . Line is the spine of art", and "I hope I may live long enough to etch one perfect line." So two famous American etchers, each himself a linear master, once said to me. I fully understood and agreed, for it is impossible to overemphasize the importance of individual line quality in judging a print. Since lines constitute the vocabulary of the graphic artist, he is limited to them for the transmission to his audience of his every thought and impulse, from the most subjective to the most objective, and, if he is to attain full realization in his expression, he must avail himself of all their resources. Few printmakers in history have wholly succeeded in this, yet every one who may fairly lay claim to any real significance has, according to the degree of his mastery of line, both told his story and mirrored his own personality. The lines of Rembrandt, Dürer, Schongauer, Canale, Meryon, Goya, Daumier, Whistler, Zorn, and all the other masters, are as different as were the characters and temperaments of their authors. Eloquence and beauty, in both feeling and facture, were, however, common to all of them. And of all the different kinds of line, in all the pictorial media, I believe the etched line has, by virtue of its inherent physical and emotional qualities, the greatest essential beauty and the widest range of sensitivity and expressiveness.

For sheer, unqualified beauty of line I believe that the work of no American etcher, not excepting that of Whistler himself, has surpassed Winkler's. Whatever other faults may sometimes appear, as perforce they must by standards as high as his, his lines are always beautiful. Whether the few of a quickly recorded graphic impression, or the multitude of a highly finished, fully realized concept, whether long or short, curved or straight, unwavering in their incisiveness or vibrant with

emotional feeling, from tapering ends to tapering ends, they are instinct with life and intensity, free as air yet always controlled within the limits of their own purpose and meaning.

The brilliance and sureness of John Winkler's draughtsmanship matches the quality of his line. As an executant he is a virtuoso of the first order. I have worked side by side with him in our years together in France and many is the time I have seen him standing on a crowded Paris sidewalk, surrounded and sometimes jostled by the passers, his grounded plate on a small portfolio held in the bend of his left arm, disdaining any aid of preliminary sketch or transfer, completely lost in his work and oblivious of all that went on around him, immovable except for the staccato movement of his needle. With an almost uncanny sense of proportion and feeling for form and a speed unmatched by that of any other etcher I know, I have seen him translate the intricate complexities of a Gothic façade or a crowded French street lined with tumbled shopfronts into glistening copper lines on the jet black ground of his plate, all in perfect proportion and faultless perspective, in reverse drawing if he deemed it necessary, and in the period of a single day or less. Then back to his studio where, with no thought of food and grudging the time to etch his plate by the usual method of immersion in the acid bath, he brushed the mordant carressingly over the lines with a feather, virtually painting them into the copper with a rapidity yet sureness of judgement of the "bite" that even now, after my own years of experience, seem well nigh incredible.

It was thus John Winkler, etcher extraordinary, produced "The Delicatessen Maker," typical in a long series of dazzling plates, conceived with poignant sensitivity and executed in terms of that most beautiful—and most rare—thing, the perfect line of the true etcher. J.T.A.



MAURICIO LASANSKY *Self Portrait* 1945 12 x 10

LASANSKY AND THE IOWA PRINT GROUP

BY

ROY SIEBER

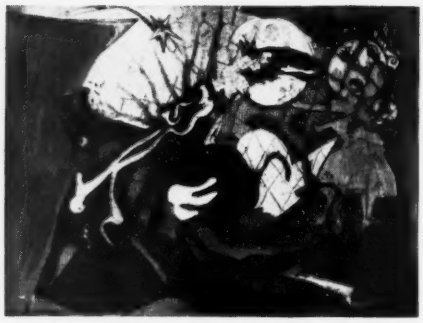
INTAGLIO requires above all a deep respect for the copper plate; the print—powerful as it may be—is a pale reflection of the sensuous, sculptured quality of the surface of the copper.

Far from a passive, insensitive surface, the plate, once the original drawing is transferred, becomes, in the words of Mauricio Lasansky, "an active participant in determining the ultimate form of the work of art."

It is with this fusion of respect and mastery, submission and control, that the union of artist and plate takes place; and this union is at the core of the powerful artist-engraver tradition. The prints of such men as Master E. S., Schongauer, Mantegna, Rembrandt, Goya and Picasso evidence a concern with printmaking not as a reproductive technique, but rather as a powerful integration of artist and medium.

MAURICIO LASANSKY *La Rosa & El Espejo*
1941 24-1/4 x 16-7/8

MAURICIO LASANSKY *Changos* 1936 15-3/8 x 19-5/8

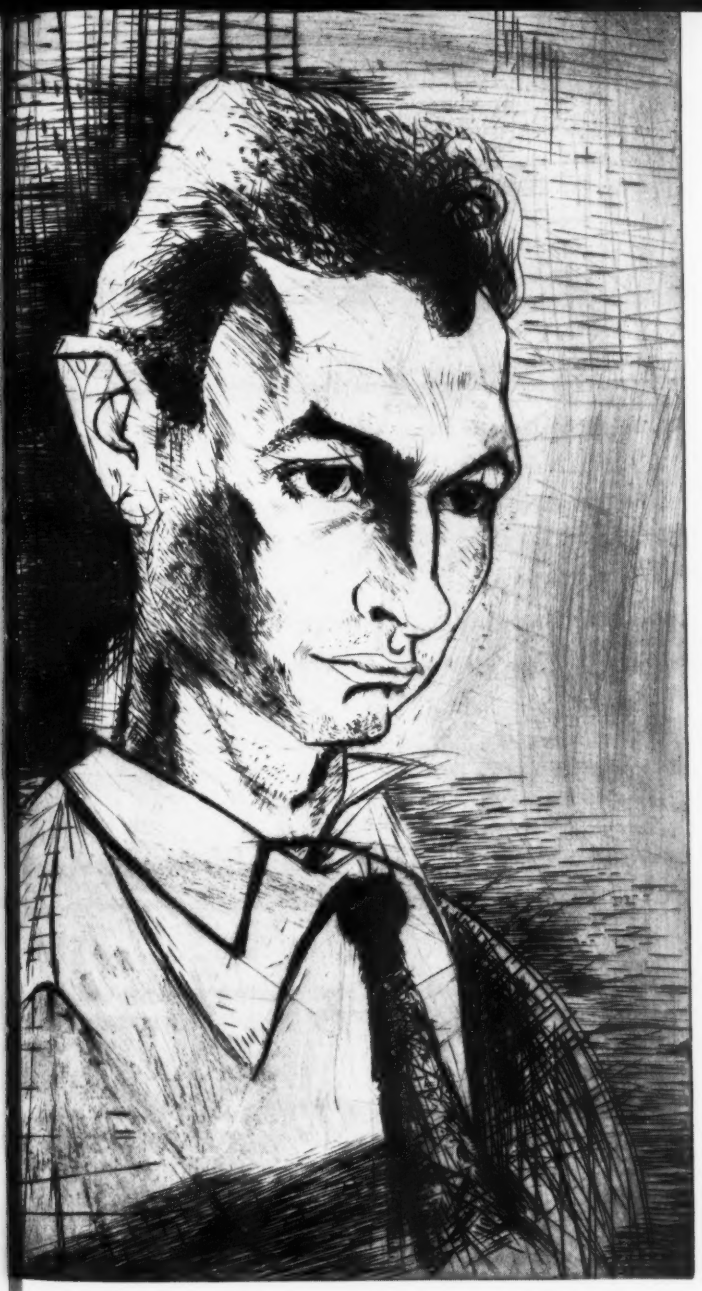


MAURICIO LASANSKY *La Lagrima*
1945 8-7/8 x 11-7/8

Further, in the work of the Renaissance goldsmiths, such as Maso Finiguerra; in the makers of many Niello plaques; in relief sculptures, such as Donatello's *Miracle of the Irascible Son* on the High Altar of *Il Santo* in Padua; in all of these is found the same respect for the graphic penetration of a metal surface that is the hallmark of the modern intaglio-printmaker.

However outstanding the tradition of artist-engraver, it has not been a dominant trend in the history of printmaking. As early as the beginning of the sixteenth century men like Marcantonio Raimondi began what was to become the major concern of subsequent printmakers—the reproduction of paintings and drawings of others. Valuable as this service might have been,

MAURICIO LASANSKY *Firebird*
1951 34 x 21

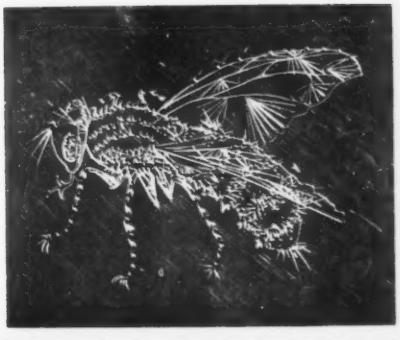


JAMES LOUIS STEG *Self Analysis* 1948 23-3/4 x 13-1/4

ARTHUR LEVINE (plate) 1948
detail (a. 4 x 5) 18 x 21

H. CARROL CASSILL (plate)
The Sophisticate 1948
16-1/8 x 12-1/8

BARBARA ELLISON FUMAGALLI (plate)
1947 detail (2 x 1-3/4)
6-3/4 x 8-1/4



it acted as a barrier to any real concern for the plate as other than a facile, passive medium for transfer-drawing. Indeed, contact with the plate was almost completely lost when etching for the most part supplanted engraving in the process of reproduction. Printmaking was generously included among the arts as a 'minor art'; one which could not be respected for it was neither original nor inventive. It was not until after the invention of photo-chemical processes of reproduction that this damagingly narrow view of printmaking could be erased.

Thus it is that although the work of the Iowa Print Group has been called a new direction in intaglio, it could equally well be termed the *renewal* of a direction in intaglio, for the plate has again become a vital participant in a creative process.

The tradition of intaglio, based on the integration of artist and medium is the goal of Lasansky, the artist, and is the goal to be instilled in the students of Lasansky, the teacher—it is the credo of the Iowa Print Group. It is an approach that is, above all, flexible.

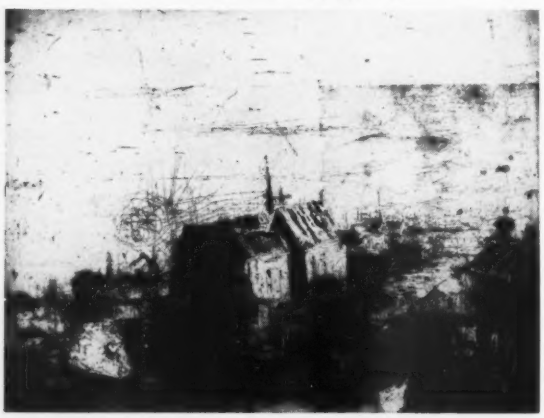
Although burin and drypoint permit the most direct contact with the plate, they can be freely combined with hard and soft ground etching, aquatint, and lift-ground techniques. Thus approached, the copper becomes a flexible, cooperative medium, workable, and, by scraping and burnishing, reworkable.

An almost endless combination of possibilities present themselves, including both innovations and the rediscovery of lost techniques: grease, duco, wax; holes cut through the plate; *criblé;* photoengraving techniques; use of metals other than copper such as zinc, iron or magnesium. Obviously it is not a rapid medium: Lasansky's Argentinian drypoints were two years in the making; three plates finished in a year is an average record. Fifty states is not unusual; reworkings that amount in themselves to separable creations.

The Iowa Print Group, which has since become a major force in printmaking in the United States, was begun in 1945 under the leadership of Mauricio Lasansky who had two years earlier, despite a well established reputation in Argentina, come to the United States as a Guggenheim Fellow, for a time studying with Stanley William Hayter.

The Group, composed of Lasansky, his co-workers and students, has an amazing record. Three group shows have appeared: the first, held in the Art Institute of Chicago in 1947, was fostered by Carl O. Schniewind; another, *A New Direction in Intaglio,* jointly sponsored by the Walker Art Center of Minneapolis and the Colorado Springs Fine Arts Center, toured for more than two years. The Arts Council of Great Britain has sponsored a third exhibition which currently is in England and is scheduled for Australia; and a fourth is being prepared under the auspices of the Cultural Attaché

ARTHUR LEVINE *Cityscape* 1950 30 x 22-1/8



ANN DIDYK *Winter* 1951 23-3/4 x 17

JANE ROGERS GODDEN *Flickers* 1950
15-7/8 x 12-5/8

RAY FRENCH *Anteater* 1947 11 x 13-7/8

of the American Embassy in Paris for exhibition in France.

In addition, members of the Group, during the first five years, have been awarded an overall average of nearly fifty percent of all prizes in important juried print exhibitions in this country.

Members after leaving the workshop have little working contact with it; as independent artists their current work is, naturally, their own responsibility although their prints made while members of the Group continue to be exhibited in Group shows.

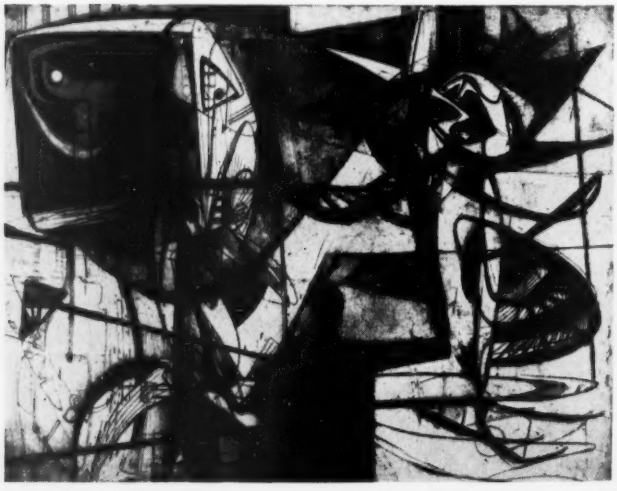
Of the former members of the Group, many are teaching printmaking—currently about sixteen—all of whom have been instrumental in organizing or reorganizing print departments. In three instances former members have established new annual exhibitions of national scope. Further, four Tiffany awards have been granted to former members of the Group; it is significant that three of the five grants offered in print making in 1951 were received by former Iowa Print Group members. Four

PAUL EMERSON *Nudes* 1948 11-7/8 x 11-7/8

RICHARD BOWMAN *Sun and Rocks* 1948 12-1/8 x 9-7/8

OTTO OCVIRK *Crucifixion* 1948 16-3/4 x 10-3/4

MAURICIO LASANSKY *Time in Space* 1946 17-7/8 x 23-7/8



Fulbright scholarships in printmaking and one Guggenheim Fellowship are also a part of the history of the Group.

Carl Zigrosser, writing for the Silver Anniversary Issue of the *Art Digest* (Nov. 1, 1951) seems to sum up the history of the Iowa Print Group when, with reference to, among others, Lasansky he states that "a, new kind of print, sometimes abstract, sometimes expressionist, but always based on complex intaglio techniques, has spread like wild fire."

It is evident that any evaluation of the effects of the Iowa Print Group would be premature; fifteen years rather than five will be needed before any analysis of the impact and significance of the group can be made. However, an examination of the prints produced by members of the Iowa Print Group will reveal a vitally important point for any future evaluation. From the prints of, among others, Myers, Steg, Levine, Cassill, Didyk, Elgart and Jones one conclusion becomes evident: the work of the Iowa Print Group exhibits an approach, not a style.

PHYLLIS SHERMAN *A Stage of Life #3* 1951 21 x 19-3/4

ELLIOT ELGART *The Wedding* 1951 19 x 24

H. CARROL CASSILL *Quite de Callao* 1951 18 x 10-1/8

MAURICIO LASANSKY

Born in Buenos Aires in 1914, and educated there, Mauricio Lasansky became Art Teacher and Director for ten active years, during which he won eighteen first prizes and was represented in every museum in Argentina. A Guggenheim Fellowship brought him to New York in 1943, and now his work was represented in a dozen well known institutions from New York to Washington to Seattle. The fellowship was renewed in 1944. In 1945 he became visiting lecturer at the State University of Iowa, with the special assignment of creating the Department of Graphic Arts In 1947 he became Associate Professor, and in 1948 a full Professor at the same University. He has continued to win prizes at many museum and art center exhibitions. His work has been added to numerous collections. One man shows have been given in San Francisco, Washington, D. C., Buenos Aires, Chicago, Minneapolis, besides his frequent appearance in shows of the Iowa Print Group or in more general exhibitions.

IOWA PRINT GROUP 1951

In 1951 the Iowa Print Group took all four first prizes at both the Bradley University National Exhibition and the Iowa State Fair. Prints by various members have been purchased by such institutions as the Brooklyn Museum, the Northwest Printmakers, Des Moines Art Center, Library of Congress, Springfield Art Museum, the Walker Art Center (Minneapolis), and the Art Council of Great Britain.

Two shows have been sent abroad for exhibition: One of 33 prints to France under the auspices of the Cultural Relations Service of the American Embassy; the other of 26 prints sent to England under the auspices of the Art Council of Great Britain. The latter will be sent to Australia.

During this past year three members have received Tiffany Scholarships, two members have received Fulbright Fellowships, and one Guggenheim Fellowship has been renewed.

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A New Direction in Intaglio. Minneapolis, Walker Art Center, 1949

Robert Edwin Stinson, *Mauricio Lasansky*. Thesis for Master of Arts degree, Iowa City, 1948

Carl Zigrosser, *Six Centuries of Fine Prints*. New York, Covici-Friede, 1937

COVER ILLUSTRATIONS

STANLEY WILLIAM HAYTER – *Cronos*
MAURICIO LASANSKY – *For An Eye, An Eye #5* – *Dachau*
El Cid – *Auto Retrato*
MALCOLM MYERS – *St. Anthony*
JAMES LOUIS STEG – *American Culture #5*
ELLIOTT ELGART – *Portrait of My Wife*

The American Institute of Graphic Arts Exhibition

PRINTING FOR COMMERCE

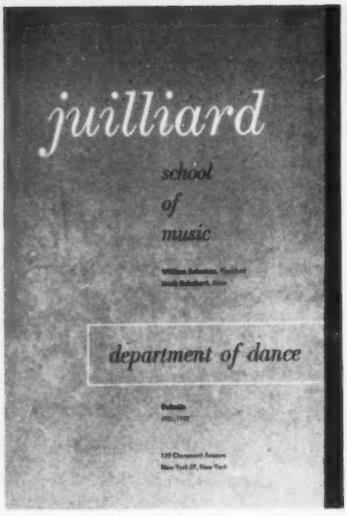
1952

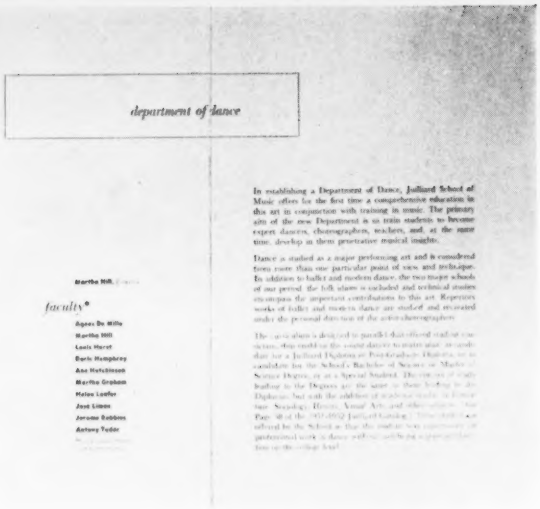
IF AMERICAN DESIGN is on the road towards standardization, the show gives no inkling of such a calamity. Variety in style and approach is as great as ever; there are few common characteristics beyond the fact that most of the exhibits by far fall somewhere in the category vaguely called "contemporary." Only a few items—reprints of speeches, for example—follow the traditions of book design. Period typography is represented by just one example, though there are several that take their inspiration, more or less lightly, from the past. That most of the other pieces, not being cast in traditional literary forms, depend for their appearance on the potentialities of new processes and techniques rather than on those of classical book typography, should surprise no one.

The 1952 Printing for Commerce Exhibition of the American Institute of Graphic Arts is one in a series that began back in 1924, suffers a long eclipse during the war and post-war years, and was not revived until 1949. It is a pleasure to report that the Institute, with Charles E. Springhorn heading the exhibition committee, has managed to round up a stimulating show.

From several thousand entries 179 pieces were selected by a jury consisting of two typographers (Burton Cherry, jury foreman, and Franz Hess), two designers (Louis J. Ansbacher and Freeman Craw), a paper man (Ellsworth Geist), a production manager (Thomas S. Hutson) and a consulting art director (Tobias Moss).

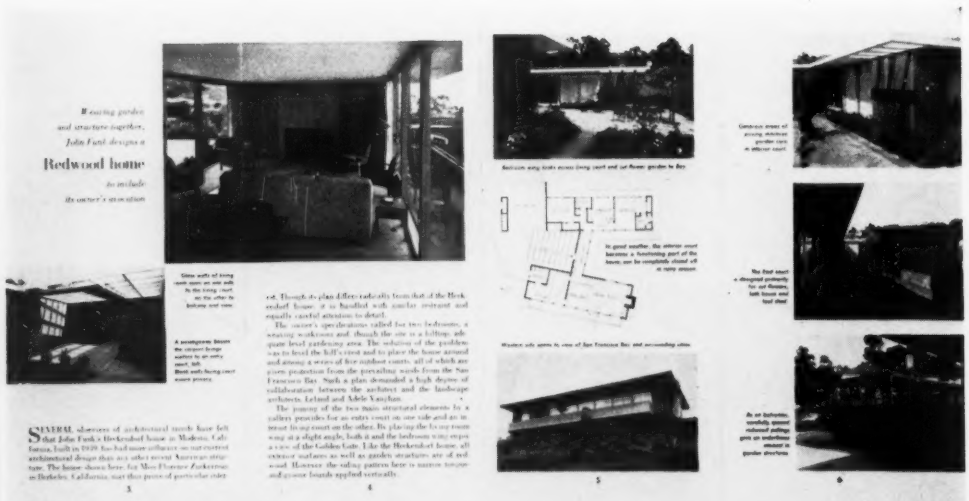
The show covers media as different as annual reports and Christmas cards, catalogues and letterheads—in fact any printed material except advertisements, magazines, books produced for sale, posters and packages, all of which are represented in other annual exhibitions. As usual, the great bulk is made up of printed pieces sponsored by business organizations, mostly designed to





sell the company's wares or the company itself. A smaller number of items comes from such sources as schools and museums. A still smaller group, from a variety of sources, consists of what might be called "working" pieces of printing, i.e., pieces designed not to sell but to be referred to, filled in or otherwise used in the day's work.

The jury was asked to pick out the best pieces, not necessarily those most typical of American design and printing in 1951. Accordingly, the exhibition is not a census or a miniature replica of the flood of print amid which we live. Many familiar effects, methods and styles are not represented, undoubtedly because the samples submitted were not good enough. Quality of design and reproduction were the only standards of choice, and the selections show that



"quality of design" was happily interpreted by the jury to mean freshness and originality rather than mere correctness and good form. If traditional design comes off rather badly under this interpretation, the show at any rate, is far from dull.

Charles Lofgren's theme illustration for the show, displayed on the opening panel and the catalogue cover, epitomizes much of what follows. It is a photogram of quoins, typographic furniture and other printer's tools shown as barely recognizable shapes without detail—an indication of the subject matter rather than a complete picture. The use of mere suggestion in place of flat statement characterizes many of the exhibits. For the most part realistic detail appears only where it is part of the story, as it is, for example, in a catalogue. Photography, once believed to be the most literal technique of all, supplies some of the most powerful and universally valid illustrations.

All in all, here is a show of talent and craftsmanship that anyone with an open mind and a feeling for the visual arts is likely to enjoy. But the exhibition would not be worth its salt if it did not raise questions as urgent as those it answers.

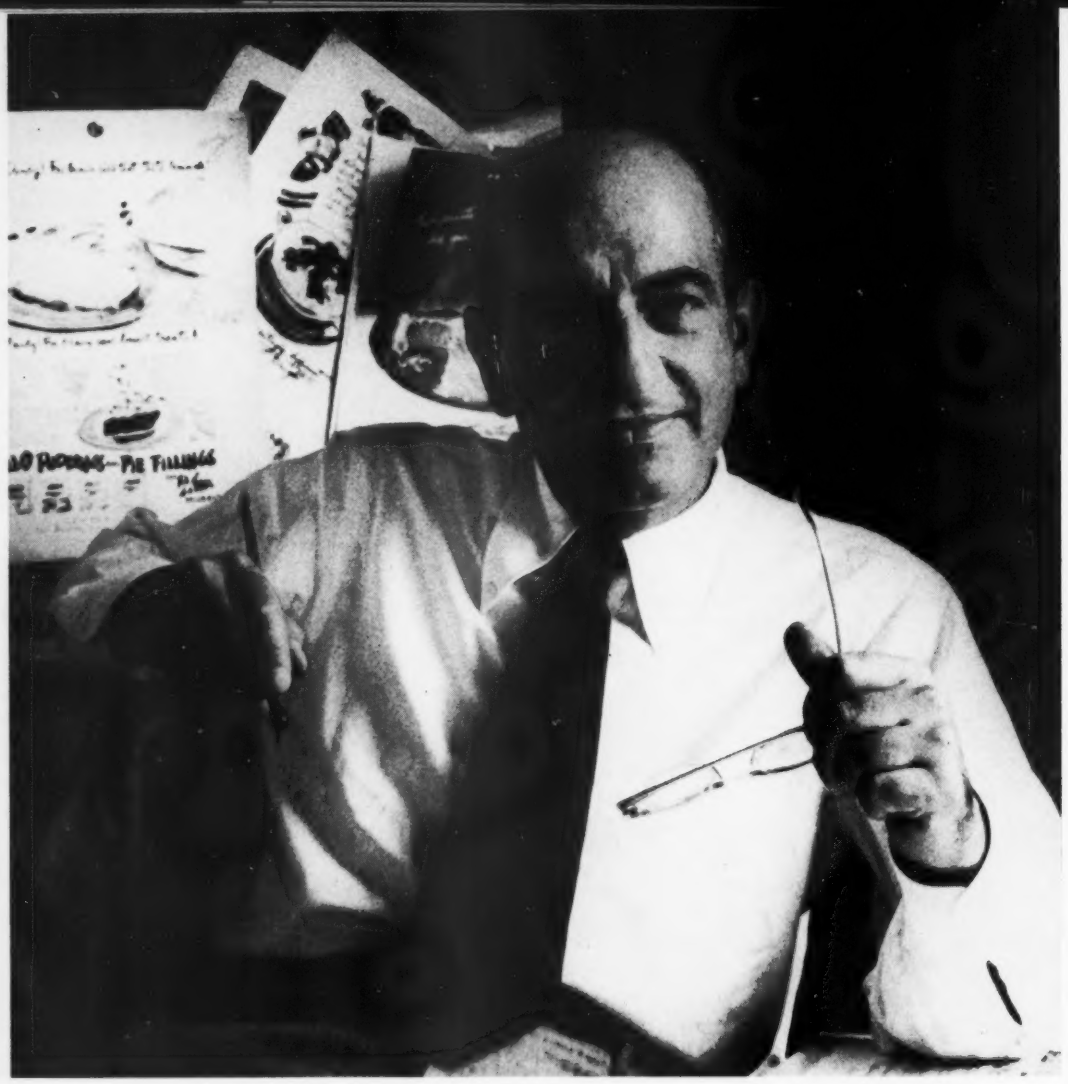
Among such questions, the most persistent is: With all that talent evidently available, why don't we see more stuff like this? Why is the fresh approach, exemplified here, still the exception?

Of the corporations that have taken the plunge into contemporary graphics, few are known to have gone back to the old-hat school of design—which would seem to indicate that modern graphics is doing its job among the audience. The conclusion seems inescapable that some corporations are less receptive to new ideas than the public. Designers know that the hardest thing about an original idea is to sell it. The big selling job today is that of convincing more and more business people that their public won't be upset by new things. Only as that job is done will Burton Cherry's plea in the *Note from the Jury* be answered:

> "The client . . . . must be more understanding of the complex problems faced by the designer and the printer. He should respect their ability and allow them the freedom to use it."

In another direction growth is possible—and needed. Forms, checks, order blanks, questionnaires, directories, timetables and other . . . . . house magazines. "Working" pieces at best . . . . . typographic problems. Less good work is probably being done here than in design for selling with its more tangible returns to the sponsor. Still, if well designed and printed, they bring returns of their own, in good will and in greater efficiency. This category was scantily represented and it would be good to see many more such pieces in a future Printing for Commerce Exhibition.

GEORGE SALOMON



DOM CASUAL is the answer to a hunch that a good market awaited the production of a type face resembling freehand lettering, such as is now commonly used in advertising headlines.

Having come to this conclusion, Steve Watts of American Type Founders set out to find the man best qualified to design such a type face.

Peter Dom was chosen because his many years' experience in working with advertising agencies had helped him develop a natural talent for a free and easy style of hand lettering. It has been used by numerous national advertisers.

A photo alphabet of some of Mr. Dom's best free-hand letters was studied by members of the Advertising Typographers Association and also submitted to the National Board on Printing Type Faces. Both

All beer tastes better when it's dressed
In ONE-WAY bottles—they're the best.
Most brands cost less when bought this way.
They're flavor-holders, gourmets say!

18 Dom

24 Dom

30 Dom

36 Dom

48 Dom

60 Dom

groups approved the letter designs. So Dom Casual was born.

It would have taken a minimum of two years to make the pattern plates and matrices for the six sizes of Dom Casual now available if the usual method had been employed. Walter Russ developed a new method of making pattern plates from which matrices are cut. This involves the use of well known etching techniques, which, have not heretofore been used in making pattern plates.

The method permits a far more faithful reproduction from the artist's original drawings, and reduces the time required to make the plates and matrices from years to months.

Peter Dom was born of Armenian parenthood in Teheran, Iran (Persia). He attended American Missionary schools until the age of 12, when he came to the United States. After graduating from the Chicago Academy of Fine Arts, Mr. Dom became a cartoonist and a commercial artist. Later, he served an apprenticeship in lettering under Will Ransom, type designer.

Mr. Dom has been free-lancing since 1925. He has been located in New York since 1922. He lives in Manhattan.

He served with the Tank Corps of the United States Army in World War I. He is married and has a son and a daughter, both of whom are artists.

ATF is duly grateful to Peter Dom for Dom Casual which promises to be one of their largest selling types.

ABCDEFGHIJKLMNOPQRSTUVWXYZThTt&

abcdefghijklmnopqrstuvwxyzffflsstt

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BOOK REVIEWS

M. J. GLADSTONE

JOHN W. DOSCHER

FRANK J. LIEBERMAN

IT IS REMARKABLE that while the general taste of the last two decades has resurrected baroque paintings and sculptures from extended damnation and even earmarked them for special attention, the bibliophile has failed to find anything of special note in seventeenth century book illustration. This state of affairs is due in great measure to lack of familiarity with baroque illustrated books—hardly any old collections of them exist in Europe or America, and even public institutions have been hesitant to gather new collections in the face of inadequate reference material. It is also due in part to the critical abuse levelled by the few scholars who have until now entered fleetingly into the field.

One collection, of no more than about one-thousand seventeenth century illustrated books has, however, been accumulated at the Harvard College Library during the past fifteen years; and now, at last, Philip Hofer, the library's curator of printing and graphic arts, has brought forth a handsome volume on *Baroque Book Illustration*—which serves not only to call attention to the Harvard material, but also stands as an introduction to an entirely new field which is worthy of serious study.

Since few beside Mr. Hofer himself have had the opportunity to examine any large number of baroque illustrations, his opinions are invulnerable. It should be observed, however, that he treads very cautiously in making comparative claims for his subject matter—more cautiously, in fact, than may seem necessary in the company of his 150 beautiful plates (for the very special shortcomings of which he makes extravagant apology). But while his work represents an entry into what will undoubtedly be a very fertile field for future investigators, it is based on a moderate-size collection of books, which will support only moderate claims. *Baroque Book Illustration* is especially commendable in that it indicates what may, and does not promise what will, lie ahead.

In short, Mr. Hofer's book is free from even those faults of normal enthusiasm which most introductory studies are readily enough forgiven. The author satisfies himself with noting and explaining the lack of recognition hitherto given his material, locating the printer and his work in the historical panorama of the seventeenth century, and providing us with general qualitative (but essentially non-comparative) observations on the baroque book. From this, he proceeds to closer examination of what appear to be the most influential aspects of baroque book-making in each of the major European nations. This cursory text is followed by a few pages of descriptive matter regarding the 149 plates which constitute the major part of the book—and these, as it is customary to say, speak very eloquently for Mr. Hofer's thesis. M.J.G.

BAROQUE BOOK ILLUSTRATION. *A Short Survey from the Collection in the Department of Graphic Arts, Harvard College Library.* By Philip Hofer. Harvard University Press, Cambridge. 1951. 43 pp. + 149 ill. 8⅜ x 11½ inches. $7.50.

Harry B. Coffin's *Designs, Borders, Backgrounds, Tints & Patterns* proposes to "furnish the reader with a variety of well-designed material that he can use, without further permission, for any graphic or decorative purpose he may desire. In other words, if he is preparing an advertising layout or a book, catalog, magazine, brochure, or direct mail matter, he can choose from this book any border, tint, pattern, or ornament for his layout design."

The publication of this spiral-bound portfolio of 750 different line-cuts raises two questions. The first, "Why has such material been so long in appearing? is difficult to answer with any degree of thoroughness. In all probability, however, its present existence should be related to the increasing use of photo-mechanical processes in the printing world.

The second question, more fruitful and more important, is: "Can such a publication be counted as desirable?" Certainly, from the point of view of anyone interested in professional printing accomplishment the immediate answer is "No"; for this is material which is opposed to individual invention and which serves to standardize printing production. Yet the chance of these line-cuts being incorporated into the work of any creative designer is very remote. And, on the work-a-day level where they will much more probably find use, they represent 750 additions to the standard job-printer's set of electrotypes. The production of such a compilation is, therefore, not the menace it may seem. Further questioning must depend on closer examination of the specific work at hand.

To call this collection catholic in taste would be to let it go too easily. It does contain some lovely and unusual cuts, but it matches these in number with gross and common ones. Let us say of it—undistinguished as a totality, but with enough material to enrich everyday printing to

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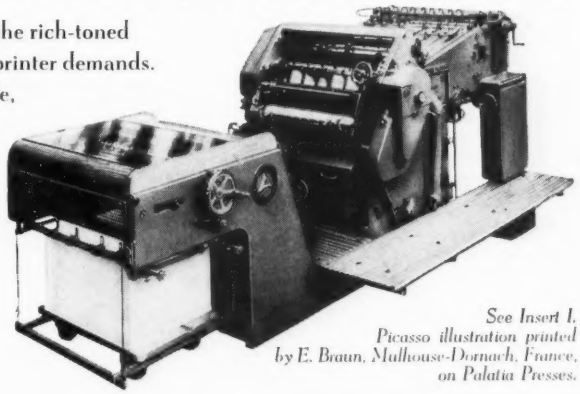

See Insert I.
Picasso illustration printed by E. Braun, Mulhouse-Dornach, France, on Palatia Presses.

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place it in the desirable category. Of the quality of reproduction—this again is variable; but too many of these cuts are either poor to begin with or have been poorly printed. Of the price—four dollars and a half seems unnecessarily high.

Designs, Borders, Backgrounds, Tints & Patterns will probably be followed before very long by other similar works. They will best serve their own interests as well as the printer's if they are more highly selective in subject matter, style, and quality; if they offer better reproduced material; and if they are more reasonably priced. M.J.G.

DESIGNS, BORDERS, BACKGROUNDS, TINTS & PATTERNS. Edited by Harry B. Coffin. The Studio Publications, Inc., and Thomas Y. Crowell Company, New York. 1951. 80 pp., all but five of them given to illustrations. 12⅛ x 9½ inches. $4.50.

* * *

Designing Books consists first, of Tschichold's general rules for planning books; second, of the composition rules, or house-style, which he worked out for Penguin Books; and, third, of fifty-eight examples of his typographic design from 1935 through 1949. By far the greater number of designs reproduced date from the later years. It is hard to reconcile this Tschichold with the author of the famous "Das Neue Typographie," which had such an influence in the 1930s, or with Tschichold the student and connoisseur of Chinese art; free-flowing, asymmetrical, full of delightful dramatic surprises. It might be said that *Designing Books* is the credo of a typographer apparently exorcised of the creative daemons.

As evidenced by the Penguin Books themselves (including the King Penguins and the Puffin Books), Tschichold's house-style has been highly successful and can well serve as a model for any such publications.

ILLUSTRATION
PRINTING
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FULL-TONE
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And with much of what the author has to say of the general planning of books one must agree. Many of the basic tenets of sound book planning and designing are admirably and clearly set forth. There seems, however, little justification for didactically stating that capital letters "have to be letterspaced, always and everywhere, and by a sixth of their body at least." Or, and this seems most revealing, "In general, a book is no place for experimentation; attempts to apply asymmetrical typography have not had much success."

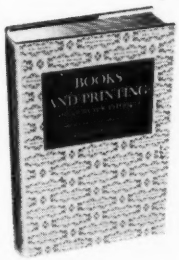
To the dictum that "Most of today's title-pages are, unfortunately, worse than those of the close of the 19th century," one is tempted to say—flippantly, perhaps, "Speak for yourself, Jan!" For, of the twenty-four title-pages here reproduced, twelve (thirteen including that of the book itself) are layed-out in a style which is possibly an effort towards extreme simplicity, but one which this reviewer finds unimaginative to a degree—title, and in some cases author's name and subheading, uncompromisingly *skied*, publisher's inscription placed at the very bottom of the type page, and between these elements, nothing but blank paper. Here, one feels, is the very fault with which Tschichold is concerned when he writes of the need to "create a convincing form from a few lines without any artistically empty spaces . . . " This state of affairs is especially surprising in light of the author's knowledge of Chinese art, for who knows better than they the subtle art of placement? It is curious that one of the title-pages which worst offends in this fashion is that for "Chinesische Farbendrucke der Gegenwart"[1]

Let it not be implied that there is no stimulus in this book: that would be both unfair and untrue. At least fifteen of the reproductions of title-pages, book pages, pamphlet covers, and the like are first-rate examples of the beauty of the classic

Of type and books and their creators

BOOKS and PRINTING

A Treasury for Typophiles



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approach. Furthermore, it is a rare pleasure to see a book bound in such a strikingly handsome paper as this is—illustrating Tschichold's strong plea for the wider use of decorative papers in bookbinding. The illustrations are admirably reproduced on eminently suitable paper by a combination of offset and letterpress, and, save for an overlong text line (36½ picas for 14 point Bembo) and insufficient leading, the meticulous production of this book leaves nothing to be desired. F.J.L.

DESIGNING BOOKS. *Planning a book. A typographer's composition rules. Fifty eight examples by the author.* By Jan Tschichold. Wittenborn, Schultz, Inc., New York. 1951. 21 pp. + 58 full-page plates, some in color. 9¼ x 13 inches. $5.00.

* * *

My Camera in the National Parks, by Ansel Adams, is a portfolio of pictures by a noted American photographer, showing spectacular views, mountain tops, rugged shorelines, rivers, geysers, and lakes within our National Parks. The book is extravagant in production, and leaves one wondering whether it is intended for the lover of our parks and the great outdoors or for the worshipper of photographic technique. At any rate, it seems a memorial piece in adoration of one of our best known contemporary camera artists. The book is produced by Virginia Adams, wife of the author, and Houghton, Mifflin Company.

Ansel Adams, born 1902 in San Francisco, was educated as a musician, and in his youth turned to photography as a means of expression. His work has been influenced by the photography of Edward Weston and the f 64 school, and is blessed by Steichen and his esoteric group. A purist in approach, he is a meticulous worker, and succeeds despite a cumbersome system he has developed and sponsored. That the system has great merit is attested by the splendid control of tone in the pictures shown.

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Thirty plates, beautifully engraved and finely printed on a heavy chrome-coated stock are the feature of this large, plastic spiral-bound book. The thirty pictures cover almost as many parks, taking in minutiae as well as grand landscapes and awe inspiring feats of nature. Fortunately, "long throw" pictures dominate, for the close-up shots are just a bit disappointing. Control of tone values is superb, but in a few instances greater compression and shorter scale may have dramatized the pictures even more.

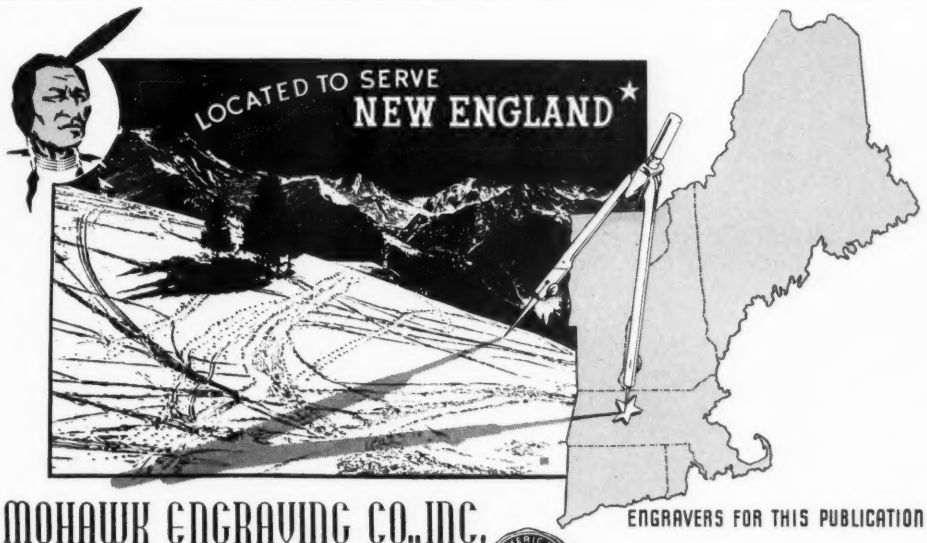
The photographs are appended with lengthy descriptions in a separate section at the back of the book. Adams tells how each picture was made and why, and records the equipment used, exposure, and development—material unimportant, perhaps, to the accomplished worker, but apparently demanded by reader interest. Along with descriptions of the pictures, Adams tells something of his system of "exposure." As an added note, there are about ten pages of "Information on the National Parks and Mountains," and a selected list for general reading, covering among other things books on flora, fauna, and the parks themselves.

This book is a collector's item for those wanting the finest in photographic reproduction via letterpress, for rarely have I seen photographs printed more beautifully. I would not value the book as highly for the outdoor lover, although many, no doubt, will thrill to some of these pictures. J.W.D.

MY CAMERA IN THE NATIONAL PARKS. By Ansel Adams. Houghton, Mifflin Company, Boston. 1951. 97 pp. 12 x 14½ inches. $10.00.

* * *

The *Kodak Color Handbook* is a notebook of comprehensive information dealing with Kodak color films and the Kodak Dye Transfer method of making color prints. The information covers creative as well as mechanical and scientific aspects of the processes and use of color in photography,



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but no effort is made to compare the Kodak products with other color media. Although this publication fills a special need felt by many professional-level workers, an amateur can easily follow the well-presented text and profit from it. The *Color Handbook* is long overdue, and certainly one feels that Kodak literature has at last come of age.

The present handbook is made up of four Kodak Data Books which fit into a Mult-O-Ring binder. This is designed to accept additional Data Books as they are released. The four making up the basic handbook are "Color as Seen and Photographed," "Color Photography Outdoors," "Color Photography in the Studio," and "Kodak Color Films." "Color Photography in the Studio," which has borrowed established methods of professionals in advertising and illustrative photography, is perhaps the best written of the four.

These books deal with practically every major aspect of color photography—light and color, characteristics of color, controlling light contrast, equipment, flash substitution, and exposure. They also provide full working data on the Kodak family of color film—Kodachrome, Ektachrome, Kodacolor, Ektacolor, and Dye Transfer. On the whole, they are well illustrated, with fine engravings in color, although a few insipid so-called fashion shots are pretty bad. Of special value are picture series showing the same subject under different conditions.

That new or revised Data Books may be added from time to time to keep information up to date makes the *Kodak Color Handbook* a manual of lasting value. The handbook should be a great help to the professional photographer, the amateur, and anyone interested in graphic arts. To this writer, it is the most exciting compilation of color data to be presented in the last decade. J.W.D.

KODAK COLOR HANDBOOK. Eastman Kodak Company, Rochester, New York. 1951. Binder 7 x 9 inches. $5.00.

The *Kodak Graphic Arts Handbook* is a companion piece to the *Kodak Color Handbook* and the *Kodak Reference Book,* all of them being exactly alike in format. It is designed to provide lithographers, photoengravers, and others in the field of graphic arts with a fuller understanding of Kodak products and methods. The Mult-O-Ring binder holds three basic Data Books, covering "Kodak Graphic Arts Films and Plates," "Darkroom Construction for Professional, Photomechanical, and Industrial Use," and Masking Transparencies for Photomechanical Reproduction."

Composition and physical properties, photographic properties, exposure, reciprocity effects, sensitometric data, line and halftone materials, materials for stripping work, and materials for direct screen color separation negatives are a few of the subjects covered in the "Films and Plates" book.

The book on "Darkroom Construction" may shame some concerns into providing their help with better working facilities. Darkroom layout for specific purposes, processing sinks (their construction and care), temperature controls, floor coverings, and safelights are some of the topics treated in this section.

"Masking Color Transparencies" points out clearly that deficiencies in dyes used in subtractive color processes make masking necessary. It goes on to fully cover single and multiple masking methods. Under sensitometry, the reading and plotting of step tablets or legends is given with clarity. This is *the* Data Book of the series.

Easily read type faces are used and printed on a good heavy coated stock. These Data Books are simple in layout, well illustrated, and intelligently indexed so that subjects are easily found. An index tab in this Kodak handbook is marked for a further Data Book on "Reflection Copy," to be added at a later date.

The Kodak Graphic Arts Handbook should

be of value to those engaged in any phase of photomechanical reproduction, as well as to the color photographer. The small plant operator who has dabbled in four color engravings but has not been entirely successful in color correction should find it particularly helpful. J.W.D.

KODAK GRAPHIC ARTS HANDBOOK. Eastman Kodak Company, Rochester, New York. 1950. Binder 7 x 9 inches. $3.00.

* * *

The omissions from what we know about Dürer's life leave a great deal of room for conjecture, but to base an entire novel on the supposition that he adored his wife is simply to overlook the cumulative evidence of factual absence. For that matter, *Written in the Stars* imposes so much flimsy fiction on all its historical framework that one comes away wondering just how Dürer got involved in this old scenario, anyway. There is little to forgive here, even when allowances are made for the title's frank admission of the circumstances under which the book was written. M.J.G.

WRITTEN IN THE STARS. *A Novel about Albrecht Dürer.* By F. Hope Fisher. Harper & Brothers, New York. 1951. 304 pp. 5⅜ x 8⅜ inches. $3.00.

* * *

This is primarily a facsimile of a portfolio of copper engravings made by Jacquinet from the designs of Thuraine and Le Hollandois. The accompanying notes and an extensive bibliography are by the curator of arms and armor at the Metropolitan Museum of Art. The edition is limited to 750 copies. M.J.G.

MASTER FRENCH GUNSMITH'S DESIGNS OF THE MID-SEVENTEENTH CENTURY. Preface and notes by Stephen V. Grancsay. Greenberg: Publisher, New York. 1950. x, 22 pp. 16 full-page collotype plates. 12 x 8¾ inches. $15.00.

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The Artist at Work, a somewhat unconventional but efficiently designed booklet, represents in printed form an exhibition of the same title organized in 1944 for the British Institute of Adult Education and the Council for the Encouragement of Music and the Arts (now the Arts Council of Great Britain). It is probably the most relentlessly detailed answer yet given to the hypothetical lay question of what goes into the making of a work of art—and it is certainly the most successful.

So many twentieth century educators seem convinced that all the world can love a Degas (or at least a Rembrandt) that exhibitions and publications of this general aesthetically altruistic tenor are easier to come by than to avoid. Here, however, is one which at least in its broad outlines is directed toward aspects of visual pleasure rather than toward objects and names to be adored. The authors have covered, with numerous excellent (and, in the book, suitably small and wonderfully clear) illustrations, every conceivable factor which might determine the nature of a work of art —environmental influences, the artist's personality, his training and inspiration, optical principles, painting techniques, and on and on, even including a thumbnail résumé of the European painting tradition during the last six centuries.

None of this matter is directly concerned with the printing arts. Nevertheless, much of the substance is useful when prints are held against the general framework, and, in fact, a more precise application of a similar approach to the field of printmaking might go a long way toward eliminating the aesthetical hocus-pocus which seems to characterize contemporary popularization of the graphic arts. M.J.G.

THE ARTIST AT WORK. By H. Ruhemann and E. M. Kemp. Penguin Books, Harmondsworth, Middlesex. 1951. 72 pp. 175 ill., many of them in color. 9¼ x 7⅜ inches. 8s. 6d.

William Morris of Williamstow, which embodies a very remarkable degree of local chauvinism, finds its way to this desk mainly by virtue of the subject's Kelmscott Press achievements. It does contain an interesting contemporaneous appreciation of Morris' printing tastes (by Frank Colebrook; reprinted from the "British and Colonial Printer). Aside from these few pages, however, it offers no significant information on either the Kelmscott Press or Morris as a printer. The much-stressed relationship with Walthamstow, a London suburb where Morris lived during his early years, appears to have had little effect on his taste or production, despite the author's introductory remarks which point out somewhat breathlessly that "the personality of William Morris *must* have been greatly influenced in Walthamstow" (italics mine).

In all fairness, it should be stated that the publication of this book is related to the reopening of Water House, once the Morris family residence in Walthamstow, as a William Morris Museum. But even this relationship of the region to the man scarcely justifies the breath of Osbert Lancaster hovering over most of these 118 pages—which include the detailed account of the gold filigree tie-pin presented by one of William Morris' *brothers* to the *father* of a lady still resident in the area, and the drawing by Mrs. A. R. Hartley, B.Sc., F.R.G.S., R.D.S. of the original iron-work gate at the rear entrace of Water House; but not the chilly foreword by "The Prime Minister, The Rt. Hon. Clement Attlee, C.H., M.P.," which, of course, finds its place in the xvii pages of otherwise fulsome front matter. M.J.G.

WILLIAM MORRIS OF WALTHAMSTOW. By H. V. Wiles. The Walthamstow Press, London. 1951. xvii, 118 pp. 27 ill 4⅝ x 7½ inches. 8s. 6d.

CONTRIBUTORS

HANS BARSCHEL is an artist who came to this country from Germany in 1937. He has since lived in New York City doing art work and design for Fortune covers, pharmaceutical houses, national advertisers and has served as Art Director for the Health Department of the City of New York. Of his work he writes: "It is my special delight to solve multi-dimensional problems on a flat sheet of paper and in such a manner that even the driest scientific subject matter has graphic charm and becomes interesting."

MR. CONRAD'S interest and ability in camera and photogravure stems from a very thorough early training in Germany in typesetting and lithography. From his first work as Art Director in Bauer Type Foundry and in offset printing (Meissner & Buch) he turned in 1932 to color photogravure with Carl Shuenemann, where he was interested in the development of the Reckmeir one-shot camera. Seven years later he introduced the three-color photogravure process to England as Managing Director of B. K. T. Trini, Ltd. Later at Adprint and now at Leathley Publications Ltd., he still lives in England, marketing the Holbein Press and the Multichrome Masking Camera.

We are especially grateful to the following printers for their contribution of the color gravure inserts: *Etablissements Braun & Cie*, Mulhouse-Dornach, France; *Nederlandsche Rotogravure*, Leiden, Holland; *Carl Schuenemann*, Breman, Germany; *Societe Sapho*, Paris, France; *Sun Printers*, London & Watford, England.

The Beck Engraving Company kindly gave permission to use material on the technique of gravure printing and production data from their book Beck Gravure, copyright 1950.

Except for his years in the army, ROY SIEBER has been steadily engaged in the study of art and printmaking. He left his art major at Milwaukee State Teachers College to enlist, and later took his BA at the New School for Social Research (1949), and his MA at the State University of Iowa last June, where he is now instructor. He studied woodcuts with Adja Yunkers at the New School and printmaking with Lasansky at Iowa State.

GEORGE SALOMON, a typographic designer with Appleton, Parsons, has brought us his impressions of the AIGA show which opened on January 14. After the New York showing, it will be on display at the Government Printing Office and then at the Library of Congress, and later will tour the country. Copies of the exhibition catalog are available at 50 cents each from the Institute, 102 E. 40th St., New York 16, N. Y., as is the information about the terms on which the exhibition is available.

DOM CASUAL was freely taken from ATF's Good News! for Oct.–Nov. 1951.

JOHN W. DOSCHER is a noted teacher and lecturer on photography and active in many photographic societies in this country and abroad. He is proprietor of the Country School of Photography, South Woodstock, Vermont.

JOHN TAYLOR ARMS, M. J. GLADSTONE, F. J. LIEBERMAN, See Notes in Vol. VII, No. 1.

PRODUCTION NOTES

TYPE: Linotype *Times Roman* has been used for the text type from pages 1 through 32. The balance of the text type is Monotype Bembo. The captions on pages 1 through 24 are Linotype *Futura Medium*. Titles are set in Monotype *Deepdene*. ATF's *Dom Casual* speaks for itself.

PROCESSES: *Letterpress* by The Lane Press including the cover. *Collotype* by The Meriden Gravure Company for the Winkler print on page 38. Sheet *gravure* in monochrome by The Beck Engraving Company pages 25 through 32. Sheet *gravure* in color by European printers as noted on pages 16, 18, 20, 22 and 24 facing the inserts.

ILLUSTRATIONS: Halftone engravings which make up the cover design and many used to illustrate the work of The Iowa Print Group on pages 41 through 48 were very kindly loaned through courtesy of Mr. Friedman at the Walker Art Center, Minneapolis, Minnesota. The cuts were originally used in catalogs of exhibitions of the work of this Group. Illustrations for the section *What is Gravure?*—pages 25 through 32—were used in the book *Beck Gravure* as noted elsewhere. Photographs of the Printing for Commerce show were by Camera Associates, Inc. The Winkler print was reproduced from the original etching in the private collection of John Taylor Arms.

ENGRAVINGS: Halftone and line engravings for letterpress sections were for the most part made by The Mohawk Engraving Company, including a few new illustrations of the work of the Iowa Print Group not furnished by the Walker Art Center.

INK: The metallic inks used on the cover were made by the Sigmund Ullman branch of The Sun Chemical Company. The gravure inks used by Beck were made by the Huber Ink Company. The letterpress inks used by The Lane Press were Braden Sutphin Non-Scratch Black for the coated sections, and Sinclair and Valentines Antique Book Black for the balance.

PAPER: Cover, *Kromkote Cover,* Champion Paper and Fibre Company, Hamilton, Ohio; Coated, The Martin Cantine Company, Saugerties, New York; Antique Book, *White Superfine Text,* pages 1 through 32, The Mohawk Paper Mills, Cohoes, New York and *Ivory Colophon,* pages 33 through 40, The Curtis Paper Company, Newark, Delaware.

BINDING: Because of the size and number of special inserts, this issue is side-wired instead of sewn, and the cover glued on. The Lane Press had the job of playing solitaire with some 25,000 color gravure inserts which are not identical in each copy of the magazine but made up from a couple of dozen subjects furnished in various quantities. Note that feature articles make complete signatures which facilitates their separate use by the companies, groups and individuals concerned.

COVER: The designer has made use of a number of illustration cuts loaned by the Walker Art Center to illustrate the work done on copper in intaglio by the Iowa Print Group and by Mr. Hayter. These have been printed in three tones of copper ink made especially for this cover. The title PRINT was set in Stymie Extrabold Condensed by The Composing Room, Inc. in New York, and two shades of Benday screen added by photo-engraving. The sub-title and date lines were set in Typo-Script.

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